

**Appendix A**  
**Summary of Decisions Carried Forward**  
**from Previous Plans**

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### Previous Land Use Planning Decisions Brought Forward Without Change

Number	Name	Implemented	Valid Decision	Decision Common to all Alternative
1	Process Tree, Post, and Woodcutting Permits	Yes	Yes. Continue Implementation	Yes
2	Issue Permits for Research and Collection	No	Yes. Continue Implementation	Yes
3	Implement River Tracts SDA Prescriptions	Yes	Yes. Continue Implementation	Yes
4	Complete Reese Canyon RNA Plan	Yes	Yes. Continue Implementation	Yes
5	Implement Habitat Management Plans	Yes	Yes. Continue Implementation	Yes
6	Monitor and Implement Grazing Decisions	Yes	Yes. Continue Implementation	Yes
7	Review Grazing MOU With BIA and Tribe	Yes	Yes. Continue Implementation	Yes
8	Develop Watershed Activity Plans	Yes	Yes. Continue Implementation	Yes
9	Implement Colorado River Salinity Program	Yes	Yes. Continue Implementation	Yes
10	Monitor Air, Water, and Soil Quality	Yes	Yes. Continue Implementation	Yes
11	Resolve Navajo trespass occupancies within the Resource Area by exchange.	Yes	Yes. Continued implementation needed because of new unauthorized trespass.	Yes
12	Develop activity plans for existing communication sites on South Bluff, South of Aztec, Lybrook, South of Blanco, and on Huerfano Mountain.	Yes	Yes. This is a required (lands) program element. Huerfano Plan has been written.	Yes
13	Determine access needs & incorporate these needs into a transportation plan. Identify & rehabilitate all unnecessary roads.	No	Yes. Implementation needed due to extensive oil and gas road development throughout FFO boundaries	Yes
14	Review all lists of parcels submitted for simultaneous drawing, regular competitive and non-competitive offer to lease filings	Yes	Yes. BLM regulatory requirement performed prior to each oil and gas lease sale held by the NMSO.	Yes

Number	Name	Implemented	Valid Decision	Decision Common to all Alternative
15	Designated sites for material disposal, taking into account spacing between sites to reduce haul costs.	Yes	Yes. Continue implementation as part of program to upgrade/maintain oil and gas roads.	Yes
16	Conduct an intensive woodlands product inventory.	No	Yes. Implementation needed to identify areas with high fuel loads.	Yes
17	Provide forage for 23 wild and free roaming horses on the Rosa Community Allotment.	Yes	Yes. Continue Implementation	Yes
18	Restrict surface-disturbing activities on identified fragile watersheds and manage for watershed values.	Yes	Yes. Implementation needed due to extensive oil and gas development throughout FFO boundaries.	Yes
19	Install water control structures where feasible.	Yes	Yes. Continue implementation to improve watersheds.	Yes
20	Continue to study rehabilitation measures for oil and gas drilling where past efforts have not been successful.	Yes	Yes. Continue implementation due to extensive oil and gas development in FFO boundaries.	Yes
21	Maintain existing water control structures.	No	Yes. Implementation when federal funds are available to maintain water structures.	Yes
22	Monitor the water quality of the larger ephemeral drainages with stream flow stations and peak flow gages.	Yes	Yes. Limited implementation. Information needed for the watershed program and assess impacts from oil and gas development.	Yes
23	Conduct a water quality survey of all developed ground waters and potential ground water developments such as seeps and artesian flows.	No	Yes. Information needed for watershed program and assess impacts from oil and gas development.	Yes
24	Ensure that proper disposal of toxic waste from oil and gas wells are accomplished.	Yes	Yes. Implementation needed due to extensive oil and gas development throughout the FFO boundaries	Yes

Number	Name	Implemented	Valid Decision	Decision Common to all Alternative
25	Continue to do mechanical treatments of sagebrush and pinyon-juniper woodlands for wildlife habitat improvement.	Yes	Yes. Continue implementation of vegetative treatments where needed.	Yes
26	Develop a River Management Activity Plan for the San Juan and recreation opportunities.	Yes	Yes. Recreation opportunities are available for some tracts.	Yes
27	Develop a Cooperative Management Plan with other state and federal agencies for management of public lands around Navajo Lake.	Yes	Yes. Continue implementation.	Yes
28	Quantify all BLM water use and secure state appropriative water rights.	Yes	Yes. This action is court ordered and FFO must comply with this order	Yes
29	Protect the physical and legal availability of all existing water sources on federal coal leases by appropriate lease stipulation.	Yes	Yes. Continue implementation.	Yes
30	Reduce sediment and salinity in surface runoff by including best management practices in all activities in areas that contribute more than one AF/mi <sup>2</sup> /yr of sediment.	Yes	Yes. Continue implementation due to extensive oil and gas development throughout FFO boundaries.	Yes

**Appendix B**  
**Specially Designated Areas (List Only)**

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Specially Designated Area	Resource Designation	Alternative			
		A	B	C	D
1870s Wagon Trail	Cultural		✓	✓	✓
Adams Canyon	Cultural	✓	✓	✓	✓
Adolfo Canyon	Cultural	✓	✓	✓	✓
Ah-shi-sle-pah	Wilderness	✓	✓	✓	✓
Ah-shi-sle-pah Road	Cultural	✓	✓	✓	✓
Albert Mesa	Cultural			✓	✓
Alien Run Mountain Bike Trails	Recreation		✓	✓	✓
Andrews Ranch	Cultural	✓	✓	✓	✓
Angel Peak	Geology	✓	✓	✓	✓
Angel Peak	Recreation	✓	✓	✓	✓
Angel Peak	Wildlife			✓	✓
Ashii Na'a' a' (Salt Point)	Cultural		✓	✓	✓
Azabache Station	Recreation	✓	✓	✓	✓
Aztec Gilia	Threatened and Endangered Species	✓			
Badlands	Paleontology	✓			
Bald Eagle	Wildlife	✓	✓	✓	✓
Bee Burrow	Cultural	✓	✓	✓	✓
Beechatuda Tongue	Geology	✓	✓	✓	✓
Betonnies Tsosie	Paleontology	✓	✓	✓	✓
Bi Yaazh	Cultural	✓	✓	✓	✓
Big Star	Cultural	✓	✓		
Bis sa'ani	Cultural	✓	✓	✓	✓
Bisti/De-na-zin	Wilderness	✓	✓	✓	✓
Blanco Mesa	Cultural	✓	✓	✓	✓
Blanco Star Panel	Cultural	✓	✓	✓	✓
Bohanon Canyon	Paleontology	✓	✓	✓	✓

Specially Designated Area	Resource Designation	Alternative			
		A	B	C	D
Cabazon	Wilderness	✓	✓	✓	✓
Cabazon Peak	Recreation	✓	✓	✓	✓
Cagle's Site	Cultural	✓	✓	✓	✓
Cañon Jarido	Recreation	✓	✓	✓	✓
Canyon View	Cultural	✓	✓	✓	✓
Carracas Mesa	Recreation	✓	✓	✓	✓
Carrizo Cranes	Cultural	✓	✓		
Carson Fossil Pocket	Paleontology		✓	✓	✓
Casa del Rio	Cultural	✓	✓	✓	✓
Casa Mesa Diablo	Cultural	✓	✓		
Casamero Community	Cultural	✓	✓	✓	✓
Cedar Hill	Cultural			✓	✓
Cereza Canyon	Wildlife			✓	✓
Chacra Mesa	Cultural	✓	✓	✓	✓
Chamisa	Wilderness	✓	✓	✓	✓
Cho'li'i (Gobernador Knob)	Cultural	✓	✓	✓	✓
Christmas Tree Ruin	Cultural	✓	✓	✓	✓
Church Rock Outlier	Cultural	✓	✓	✓	✓
Cibola Canyon	Cultural	✓	✓		
Coal Belt	Minerals	✓			
Compressor Station Ruin	Cultural	✓	✓		
Continental Divide Trail	Recreation		✓	✓	✓
Cottonwood Divide	Cultural			✓	✓
Critical Big Game Habitat	Wildlife	✓	✓		
Cox Canyon	Wildlife			✓	✓
Crow Canyon	Wildlife	✓	✓	✓	✓

Specially Designated Area	Resource Designation	Alternative			
		A	B	C	D
Crow Canyon	Cultural			✓	✓
Crownpoint Steps and Herradura	Cultural	✓	✓	✓	✓
Cuba Airport	Lands	✓	✓	✓	✓
Deer House	Cultural	✓	✓	✓	✓
Delgadita-Pueblo Canyons	Cultural	✓	✓	✓	✓
Delgadito Mesa	Wildlife			✓	✓
Delgadito Pueblito	Cultural	✓	✓		
Devil's Spring Mesa	Cultural			✓	✓
Dogie Canyon School	Cultural	✓	✓	✓	✓
Dunes Vehicle Recreation Area	Recreation	✓	✓	✓	✓
Dzil'na'oodlii (Huerfano Mesa)	Cultural		✓	✓	✓
East La Plata	Wildlife			✓	✓
East Side Rincon Site	Cultural	✓	✓	✓	✓
Elk Springs	Wildlife	✓	✓	✓	✓
Empedrado	Wilderness	✓	✓	✓	✓
Empedrado Watershed	Watershed	✓	✓	✓	✓
Encierro Canyon	Cultural	✓	✓	✓	✓
Encinada Mesa-Carrizo Canyon	Cultural			✓	✓
Ensenada Mesa	Wildlife			✓	✓
Ephemeral Wash	Riparian		✓	✓	✓
Farmer's Arroyo Site	Cultural	✓	✓	✓	✓
Farmington Lake Watershed	Watershed	✓			
Foothold and Overlook Ruins District	Cultural	✓	✓		
Fossil Forest	Paleontology	✓	✓	✓	✓
Four Ye'i	Cultural	✓	✓	✓	✓
Frances Canyon	Cultural			✓	✓



Specially Designated Area	Resource Designation	Alternative			
		A	B	C	D
Frances Ruin	Cultural	✓	✓		
Glade Run	Recreation	✓	✓	✓	✓
Gobernador and Cereza Canyon	Paleontology	✓	✓	✓	✓
Gomez Canyon Ruin	Cultural	✓	✓		
Gomez Point	Cultural	✓	✓		
Gonzales Canyon-Senon S. Vigil Homestead	Cultural	✓	✓	✓	✓
Gonzales Mesa	Wildlife			✓	✓
Gould Pass Camp	Cultural	✓	✓	✓	✓
Greenlee Ruin	Cultural	✓	✓	✓	✓
Halfway House	Cultural	✓	✓	✓	✓
Haynes Trading Post	Cultural			✓	✓
Head Canyon	Recreation	✓	✓	✓	✓
Headcut Prehistoric Community	Recreation	✓	✓	✓	✓
Hill Road Ruin	Cultural	✓	✓		
Historic Homesteads	Cultural	✓	✓	✓	✓
Hogback, The	Threatened and Endangered Species	✓	✓	✓	✓
Holmes Group	Cultural	✓	✓	✓	✓
Hooded Fireplace and Largo School District	Cultural	✓	✓		
Huerfano Mesa	Cultural	✓			
Hummingbird	Cultural	✓	✓	✓	✓
Hummingbird Canyon	Cultural			✓	✓
Ignacio Chavez	Wilderness	✓	✓	✓	✓
Ignacio Chavez	Recreation	✓	✓	✓	✓
Indian Creek	Cultural	✓	✓	✓	✓
Jacques	Cultural	✓	✓	✓	✓
Jones Canyon	Cultural	✓	✓	✓	✓

Specially Designated Area	Resource Designation	Alternative			
		A	B	C	D
Juana Lopez	Wildlife	✓	✓	✓	✓
Kachina Mask	Cultural	✓	✓	✓	✓
Kin Nizhoni	Cultural	✓	✓	✓	✓
Kin Yazhi (Little House)	Cultural	✓	✓	✓	✓
Kiva	Cultural	✓	✓	✓	✓
Kutz Canyon	Paleontology	✓	✓	✓	✓
La Jara	Cultural			✓	✓
La Lena	Wilderness	✓	✓	✓	✓
Laguna Seca Mesa	Forestry	✓			
Laguna Seca Mesa	Wildlife			✓	✓
Lake Valley	Cultural	✓	✓	✓	✓
Largo Canyon Star Ceiling	Cultural	✓	✓	✓	✓
Log Jam	Paleontology	✓			
Lost Pine	Other	✓			
Lybrook Fossil Area	Paleontology		✓	✓	✓
Manzanares Mesa	Wildlife			✓	✓
Margarita Martinez Homestead	Cultural	✓	✓	✓	✓
Martin Apodaca Homestead	Cultural	✓	✓	✓	✓
Martinez Canyon	Cultural	✓	✓	✓	✓
Mexican Spotted Owl	Threatened and Endangered Species		✓	✓	✓
Middle Mesa	Wildlife			✓	✓
Morris 41	Cultural	✓	✓	✓	✓
Moss Trail	Cultural			✓	✓
Muñoz Canyon	Cultural			✓	✓
Navajo Lake Horse Trails	Recreation		✓	✓	✓
Negro Canyon	Recreation	✓	✓	✓	✓

Specially Designated Area	Resource Designation	Alternative			
		A	B	C	D
NM 01-39236	Cultural	✓	✓		
NM 01-39344	Cultural	✓	✓		
North Road	Cultural	✓	✓	✓	✓
Pelon Watershed	Watershed	✓	✓	✓	✓
Pierre's Site	Cultural	✓	✓	✓	✓
Piñon Mesa	Recreation		✓	✓	✓
Piñon Mesa Fossil Area	Paleontology	✓	✓	✓	✓
Pointed Butte	Cultural	✓	✓	✓	✓
Pork Chop Pass	Cultural			✓	✓
Pregnant Basketmaker	Cultural	✓	✓	✓	✓
Pretty Woman	Cultural	✓	✓	✓	✓
Prieta Mesa	Cultural	✓	✓	✓	✓
Rabbit Tracks	Cultural	✓	✓		
Rattlesnake Canyon	Wildlife			✓	✓
Reese Canyon	Threatened and Endangered Species	✓	✓	✓	✓
Right-of-Way Windows	Lands	✓	✓	✓	
Rincon Largo District	Cultural	✓	✓	✓	✓
Rincon Rockshelter	Cultural	✓	✓	✓	✓
River Tracts	Threatened and Endangered Species	✓	✓	✓	✓
Rock Garden	Recreation		✓	✓	✓
Rock House-Nestor Martin Homestead	Cultural	✓	✓	✓	✓
Romine Canyon	Cultural	✓	✓		
Rosa Mesa	Wildlife			✓	✓
Salt Point	Cultural	✓			
San Luis Cliffs Window	Lands	✓	✓	✓	✓
San Luis Mesa Raptor	Wildlife	✓	✓	✓	✓

Specially Designated Area	Resource Designation	Alternative			
		A	B	C	D
San Rafael Canyon	Cultural	✓	✓	✓	✓
Santos Peak	Cultural	✓	✓	✓	✓
Shepard Site	Cultural	✓	✓		
Shield Bearer	Cultural	✓	✓	✓	✓
Simon Canyon	Recreation	✓	✓	✓	✓
Simon Ruin	Cultural	✓	✓	✓	✓
Star Rock	Cultural			✓	✓
Star Spring/Star Spring-Jesus Canyon	Cultural	✓	✓	✓	✓
String House	Cultural			✓	✓
Superior Mesa Community	Cultural	✓	✓	✓	✓
Tapacito and Split Rock	Cultural	✓	✓	✓	✓
Thomas Canyon	Recreation	✓	✓	✓	✓
Toh-la-kai	Cultural	✓	✓	✓	✓
Torrejon Fossil Fauna	Paleontology	✓	✓	✓	✓
Truby's Tower	Cultural			✓	✓
Twin Angels	Cultural	✓	✓	✓	✓
Unreachable Rockshelter	Cultural	✓	✓		
Upper Kin Klizhin	Cultural	✓	✓	✓	✓
Ye'is-in-Row	Cultural	✓	✓		

**Appendix C**  
**Unsuitability Criteria for Coal Leasing**  
**(43 CFR 3461)**

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43 CFR Ch. II (10–1–00 Edition)

tional Wild and Scenic Rivers System, National Recreation Areas, lands acquired with money derived from the Land and Water Conservation Fund, National Forests, and Federal lands in incorporated cities, towns, and villages.

(2) *Exceptions.* (i) A lease may be issued within the boundaries of any National Forest if the Secretary finds no significant recreational, timber, economic or other values which may be incompatible with the lease; and (A) surface operations and impacts are incident to an underground coal mine, or (B) where the Secretary of Agriculture determines, with respect to lands which do not have significant forest cover within those National Forests west of the 100th Meridian, that surface mining may be in compliance with the Multiple-Use Sustained-Yield Act of 1960, the Federal Coal Leasing Amendments Act of 1976 and the Surface Mining Control and Reclamation Act of 1977.

(ii) A lease may be issued within the Custer National Forest with the consent of the Department of Agriculture as long as no surface coal mining operations are permitted.

(3) *Exemptions.* The application of this criterion to lands within the listed land systems and categories is subject to valid existing rights, and does not apply to surface coal mining operations existing on August 3, 1977.

(b)(1) *Criterion Number 2.* Federal lands that are within rights-of-way or easements or within surface leases for residential, commercial, industrial, or other public purposes, on federally owned surface shall be considered unsuitable.

(2) *Exceptions.* A lease may be issued, and mining operations approved, in such areas if the surface management agency determines that:

(i) All or certain types of coal development (e.g., underground mining) will not interfere with the purpose of the right-of-way or easement; or

(ii) The right-of-way or easement was granted for mining purposes; or

(iii) The right-of-way or easement was issued for a purpose for which it is not being used; or

**§3461.5 Criteria for assessing lands unsuitable for all or certain stipulated methods of coal mining.**

(a)(1) *Criterion Number 1.* All Federal lands included in the following land systems or categories shall be considered unsuitable: National Park System, National Wildlife Refuge System, National System of Trails, National Wilderness Preservation System, Na-

(iv) The parties involved in the right-of-way or easement agree, in writing, to leasing; or

(v) It is impractical to exclude such areas due to the location of coal and method of mining and such areas or uses can be protected through appropriate stipulations.

(3) *Exemptions.* This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(c)(1) *Criterion Number 3.* The terms used in this criterion have the meaning set out in the Office of Surface Mining Reclamation and Enforcement regulations at Chapter VII of Title 30 of the Code of Federal Regulations. Federal lands affected by section 522(e) (4) and (5) of the Surface Mining Control and Reclamation Act of 1977 shall be considered unsuitable. This includes lands within 100 feet of the outside line of the right-of-way of a public road or within 100 feet of a cemetery, or within 300 feet of any public building, school, church, community or institutional building or public park or within 300 feet of an occupied dwelling.

(2) *Exceptions.* A lease may be issued for lands:

(i) Used as mine access roads or haulage roads that join the right-of-way for a public road;

(ii) For which the Office of Surface Mining Reclamation and Enforcement has issued a permit to have public roads relocated;

(iii) If, after public notice and opportunity for public hearing in the locality, a written finding is made by the authorized officer that the interests of the public and the landowners affected by mining within 100 feet of a public road will be protected.

(iv) For which owners of occupied dwellings have given written permission to mine within 300 feet of their buildings.

(3) *Exemptions.* The application of this criterion is subject to valid existing rights, and does not apply to surface coal mining operations existing on August 3, 1977.

(d)(1) *Criterion Number 4.* Federal lands designated as wilderness study areas shall be considered unsuitable while under review by the Administration and the Congress for possible wilderness designation. For any Federal land which is to be leased or mined prior to completion of the wilderness inventory by the surface management agency, the environmental assessment or impact statement on the lease sale or mine plan shall consider whether the land possesses the characteristics of a wilderness study area. If the finding is affirmative, the land shall be considered unsuitable, unless issuance of noncompetitive coal leases and mining on leases is authorized under the Wilderness Act and the Federal Land Policy and Management Act of 1976.

(2) *Exemption.* The application of this criterion to lands for which the Bureau of Land Management is the surface management agency and lands in designated wilderness areas in National Forests is subject to valid existing rights.

(e)(1) *Criterion Number 5.* Scenic Federal lands designated by visual resource management analysis as Class I (an areas of outstanding scenic quality or high vessel sensitivity) but not currently on the National Register of Natural Landmarks shall be considered unsuitable.

(2) *Exception.* A lease may be issued if the surface management agency determines that surface coal mining operations will not significantly diminish or adversely affect the scenic quality of the designated area.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator has made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977, or which include operations on which a permit has been issued.

(f)(1) *Criterion Number 6.* Federal lands under permit by the surface management agency, and being used for scientific studies involving food or fiber production, natural resources, or technology demonstrations and experiments shall be considered unsuitable for the duration of the study, demonstration or experiment, except where

mining could be conducted in such a way as to enhance or not jeopardize the purposes of the study, as determined by the surface management agency, or where the principal scientific user or agency gives written concurrence to all or certain methods of mining.

(2) *Exemptions.* This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(g)(1) *Criterion Number 7.* All publicly or privately owned places which are included in the National Register of Historic Places shall be considered unsuitable. This shall include any areas that the surface management agency determines, after consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer, are necessary to protect the inherent values of the property that made it eligible for listing in the National Register.

(2) *Exceptions.* All or certain stipulated methods of coal mining may be allowed if, after consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer, they are approved by the surface management agency, and, where appropriate, the State or local agency with jurisdiction over the historic site.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(h)(1) *Criterion Number 8.* Federal lands designated as natural areas or as National Natural Landmarks shall be considered unsuitable.

(2) *Exceptions.* A lease may be issued and mining operation approved in an area or site if the surface management agency determines that:

(i) The use of appropriate stipulated mining technology will result in no sig-

nificant adverse impact to the area or site; or

(ii) The mining of the coal resource under appropriate stipulations will enhance information recovery (e.g., paleontological sites).

(3) *Exemptions.* This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which includes operations on which a permit has been issued.

(i) (1) *Criterion Number 9.* Federally designated critical habitat for listed threatened or endangered plant and animal species, and habitat proposed to be designated as critical for listed threatened or endangered plant and animal species or species proposed for listing, and habitat for Federal threatened or endangered species which is determined by the Fish and Wildlife Service and the surface management agency to be of essential value and where the presence of threatened or endangered species has been scientifically documented, shall be considered unsuitable.

(2) *Exception.* A lease may be issued and mining operations approved if, after consultation with the Fish and Wildlife Service, the Service determines that the proposed activity is not likely to jeopardize the continued existence of the listed species and/or its critical habitat.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(j)(1) *Criterion Number 10.* Federal lands containing habitat determined to be critical or essential for plant or animal species listed by a state pursuant to state law as endangered or threatened shall be considered unsuitable.

(2) *Exception.* A lease may be issued and mining operations approved if, after consultation with the state, the



surface management agency determines that the species will not be adversely affected by all or certain stipulated methods of coal mining.

(3) *Exemptions.* This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(k)(1) *Criterion Number 11.* A bald or golden eagle nest or site on Federal lands that is determined to be active and an appropriate buffer zone of land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

(2) *Exceptions.* A lease may be issued if:

(i) It can be conditioned in such a way, either in manner or period of operation, that eagles will not be disturbed during breeding season; or

(ii) The surface management agency, with the concurrence of the Fish and Wildlife Service, determines that the golden eagle nest(s) will be moved.

(iii) Buffer zones may be decreased if the surface management agency determines that the active eagle nests will not be adversely affected.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(l)(1) *Criterion Number 12.* Bald and golden eagle roost and concentration areas on Federal lands used during migration and wintering shall be considered unsuitable.

(2) *Exception.* A lease may be issued if the surface management agency determines that all or certain stipulated methods of coal mining can be conducted in such a way, and during such periods of time, to ensure that eagles shall not be adversely disturbed.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(m)(1) *Criterion Number 13.* Federal lands containing a falcon (excluding kestrel) cliff nesting site with an active nest and a buffer zone of Federal land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

(2) *Exception.* A lease may be issued where the surface management agency, after consultation with the Fish and Wildlife Service, determines that all or certain stipulated methods of coal mining will not adversely affect the falcon habitat during the periods when such habitat is used by the falcons.

(3) *Exemptions.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(n)(1) *Criterion Number 14.* Federal lands which are high priority habitat for migratory bird species of high Federal interest on a regional or national basis, as determined jointly by the surface management agency and the Fish and Wildlife Service, shall be considered unsuitable.

(2) *Exception.* A lease may be issued where the surface management agency, after consultation with the Fish and Wildlife Service, determines that all or certain stipulated methods of coal mining will not adversely affect the migratory bird habitat during the periods when such habitat is used by the species.

(3) *Exemption.* This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977;

on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(o)(1) *Criterion Number 15.* Federal lands which the surface management agency and the state jointly agree are habitat for resident species of fish, wildlife and plants of high interest to the state and which are essential for maintaining these priority wildlife and plant species shall be considered unsuitable. Examples of such lands which serve a critical function for the species involved include:

- (i) Active dancing and strutting grounds for sage grouse, sharp-tailed grouse, and prairie chicken;
- (ii) Winter ranges crucial for deer, antelope, and elk;
- (iii) Migration corridor for elk; and
- (iv) Extremes of range for plant species; and

A lease may be issued if, after consultation with the state, the surface management agency determines that all or certain stipulated methods of coal mining will not have a significant long-term impact on the species being protected.

(2) *Exemptions.* This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(p)(1) *Criterion Number 16.* Federal lands in riverine, coastal and special floodplains (100-year recurrence interval) on which the surface management agency determines that mining could not be undertaken without substantial threat of loss of life or property shall be considered unsuitable for all or certain stipulated methods of coal mining.

(2) *Exemptions.* This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(q)(1) *Criterion Number 17.* Federal lands which have been committed by

the surface management agency to use as municipal watersheds shall be considered unsuitable.

(2) *Exception.* A lease may be issued where the surface management agency in consultation with the municipality (incorporated entity) or the responsible governmental unit determines, as a result of studies, that all or certain stipulated methods of coal mining will not adversely affect the watershed to any significant degree.

(3) *Exemptions.* This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(r)(1) *Criterion Number 18.* Federal lands with National Resource Waters, as identified by states in their water quality management plans, and a buffer zone of Federal lands  $\frac{1}{4}$  mile from the outer edge of the far banks of the water, shall be unsuitable.

(2) *Exception.* The buffer zone may be eliminated or reduced in size where the surface management agency determines that it is not necessary to protect the National Resource Waters.

(3) *Exemptions.* This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

(s)(1) *Criterion Number 19.* Federal lands identified by the surface management agency, in consultation with the state in which they are located, as alluvial valley floors according to the definition in § 3400.0-5(a) of this title, the standards in 30 CFR Part 822, the final alluvial valley floor guidelines of the Office of Surface Mining Reclamation and Enforcement when published, and approved state programs under the Surface Mining Control and Reclamation Act of 1977, where mining would interrupt, discontinue, or preclude farming, shall be considered unsuitable. Additionally, when mining Federal land outside an alluvial valley

## Bureau of Land Management, Interior

floor would materially damage the quantity or quality of water in surface or underground water systems that would supply alluvial valley floors, the land shall be considered unsuitable.

(2) *Exemptions.* This criterion does not apply to surface coal mining operations which produced coal in commercial quantities in the year preceding August 3, 1977, or which had obtained a permit to conduct surface coal mining operations.

(t)(1) *Criterion Number 20.* Federal lands in a state to which is applicable a criterion (i) proposed by the state or Indian tribe located in the planning area, and (ii) adopted by rulemaking by the Secretary, shall be considered unsuitable.

(2) *Exceptions.* A lease may be issued when:

(i) Such criterion is adopted by the Secretary less than 6 months prior to the publication of the draft comprehensive land use plan or land use analysis, plan, or supplement to a comprehensive land use plan, for the area in which such land is included, or

(ii) After consultation with the state or affected Indian tribe, the surface management agency determines that all or certain stipulated methods of coal mining will not adversely affect the value which the criterion would protect.

(3) *Exemptions.* This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

[44 FR 42638, July 19, 1979, as amended at 47 FR 33148, July 30, 1982; 48 FR 54820, Dec. 7, 1983. Redesignated and amended at 52 FR 46473, Dec. 8 1987]

**Appendix D**  
**Bylaws of the San Juan Basin**  
**Public Roads Maintenance Committee (Draft)**

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# Bylaws of the San Juan Basin Public Roads Maintenance Committee (Draft)

## BYLAWS OF ROAD MAINTENANCE COMMITTEE

### ARTICLE I - NAME AND LOCATION

Section 1. The name of the Committee is the “**San Juan Basin Public Roads Maintenance Committee**” (Committee).

Section 2. The principal office of this Committee shall be located at the Bureau of Land Management (BLM), Farmington Field Office (FFO), Farmington, New Mexico.

### DEFINITIONS

**Collector Roads:** These BLM roads normally provide primary access to large blocks of land, and connect with or are extensions of a public road system. Collector Roads accommodate mixed traffic and serve many uses. They generally receive the highest volume of traffic of all the roads in the BLM road system. User cost, safety, comfort, and travel time are primary road management considerations. Collector Roads usually require application of the highest standards used by the BLM. As a result, they have the potential for creating substantial environmental impacts and often require complex mitigation procedures.

**Resource Roads:** These BLM roads normally are spur roads that provide point access and connect to local or Collector Roads. They carry very low volume and accommodate only one or two types of use. Use restrictions are applied to prevent conflicts between users needing the road and users attracted to the roads. The location and design of these roads are governed by environmental compatibility and minimizing BLM costs, with minimal consideration for use costs, comfort, or travel time.

### ARTICLE II - OBJECTIVE

Section 1. The objective of this committee shall be to provide proper maintenance to BLM Collector Roads; to work in cooperation with the BLM in the administration and implementation of their Transportation plan; and to do any and all things lawful, just and necessary to further the interest of this committee in road maintenance and related matters.

### ARTICLE III - MEMBERSHIP

Section 1. Membership in the committee shall be held only by the organizers (current oil and gas lease holders) and future oil and gas lease holders as provided by future leases and permits on the FFO administered BLM lands.

Section 2. There shall be kept a “Membership Allocation” for each Collector Road showing the wells held by each member and the associated pipelines as a part of the records of the committee. Such records shall show: Company, number of wells and percentage; and shall be kept current annually (updates in June of each year). Records shall reflect all updates and changes and shall be provided by FFO to the Committee.

Section 3. Eligibility for membership shall be based on the following requirements:

- a. Oil and gas lease holders of FFO - qualified list provided by BLM.
- b. Each lease holder (company) shall appoint one (1) person to represent that company on this committee.
- c. The Assistant Field Manager (AFM), FFO, shall be a permanent, voting member of the committee and shall serve as permanent Chairperson of this committee.

#### ARTICLE IV - OFFICERS

Section 1. The officers of the committee shall consist of a Chairperson, Recorder, and Road Supervisors.

Section 2. Officers shall be as follows:

Chairperson - Federal Officer

Recorder - BLM Staff

Road Supervisor - an elected Industry representative that functions as the Road Supervisor for each individual collector road designated for repair, upgrade and/or maintenance.

It shall be the duty of the AFM, as permanent Chairperson, to preside at all meetings of the committee.

It shall be the duty of the Recorder to keep all records, meeting notes, etc., and conduct the correspondence of the committee.

#### ARTICLE V

Section 1. It shall be the duty of the Road Supervisor to be responsible for selecting a vendor, dispatching work, and approving completed work orders. All participants of a Collector Road Maintenance Agreement will coordinate all road activities through this supervisor.

#### ARTICLE VI - MEETINGS

Section 1. The annual meeting for each Collector Road shall be held in the first Tuesday of May. During this meeting, a Collector Road(s) will be discussed for upgrade/maintenance, identify specific needs of the road, approximate cost of work and elect the Road Supervisor for each Collector Road to be worked on.

Section 2. At this meeting, a total annual expenditure limit will be set, as well as the maximum single expenditure that the Road Supervisor can authorize without securing the permission of a majority of the roads participants. Votes will be allocated to each company in proportion to the number of points they have in each Collector Road area. The BLM will be assigned 5% of the votes. If an activity requires obtaining the permission of a majority, all parties must first receive a written request for approval from the Road Supervisor. A majority will be secured when 50% or more of the available points or at least three (3) companies approve the request.

Section 3. At this meeting, for each Collector Road there will be additions and deletions, election of a new Road Supervisor as necessary, and setting of priorities.

Section 4. Special meetings will be held as needed.

Section 5. In June, Road Supervisors will meet and discuss road priorities and overall expenditure limits.

#### ARTICLE VII

Section 1. A two-thirds (2/3) majority of the "road shares" must be present to constitute a quorum for the meeting to be held.

Section 2. Each member is entitled to percentage distribution votes as allocated by the annual June update of permit status as provided by BLM, FFO. The percentage distribution is shown in Appendix A. A copy of their distribution shall be presented at annual meetings and shall be on file at the FFO.

Section 3. Voting by proxy or substitute representative is allowed. Proxy votes must be submitted in writing to the Recorder.

### ARTICLE VIII

Section 1. The committee shall be responsible for preparing and awarding a road maintenance contract for Collector BLM Roads (shown on attached maps, Appendix B).

Section 2. The contract will include, but not be limited, to the following categories:

- a. Insurance requirements shall meet all companies' requirements.
- b. Sealed bids (minimum of three (3) bids and maximum of five (5) before award can be made).
- c. Performance/termination clause and standards (only BLM standards will be accepted).
- d. Length of contract (to be determined by committee). Regionalize a contractor for two years minimal.
- e. Renewal of contract - September 1st.
- f. Billing - The contractor will bill each company monthly as per the percentage distribution. The Road Supervisor approves bills.
- g. Audit of the billings by the committee as needed.
- h. Safety.
- i. Contractor will act as an independent contractor.

### ARTICLE IX

Section 1. The administration of the maintenance standards and on-the-ground work will be supervised and approved by BLM. The BLM will coordinate with the Road Supervisor on corrections and/or any other needs. Standards for maintenance work to be done to BLM standards (Appendix C).

Section 2. Any users actions that cause abnormal damage to a road segment(s) during, but not limited to, rig moves and pipeline construction will be solely responsible for all costs to return the road segment to its condition prior to the users actions.

### ARTICLE X - PAYMENT

Section 1. The oil and gas industry (operator, gatherers, and interstate gas transporters) provide 95% of the road maintenance funds, and the public, through the BLM, provide the remaining 5%. In the event of nonpayment of a company's share of maintenance responsibility, the committee will inform the FFO to call those funds outstanding payable as per that company's bond or trespass action.

Section 2. The 95% industry share is to be split between the operators, gatherers, and transporters on a point system. One point would be assigned to the operator of each well and CPD site, and one point would be assigned to each gatherer for each active meter. In the case where the operator of a well is also the gatherer, then that company would only be assigned one point for that well. Interstate gas transporters that have facilities accessed by collector roads will be assigned 10 points per mile of pipeline. Each company's share of the road maintenance for a particular Collector Road would be the sum of all of their points divided by the total number of points assigned to the road.

The BLM shall work cooperatively with industry to determine the users for each individual Collector Road and the total number of points that are to be distributed among the users. This will determine the oil and gas industry's 95% participation in the total costs of the road maintenance. The bid process to be implemented will be as follows:

After a Collector Road has been selected for upgrade/maintenance and the specific needs identified and the approximate cost has been determined, industry representatives will solicit three bids. Based on the bid information submitted by the contractors a selection will be made. The selected contractor will be hired for a minimum of two years. The Roads Maintenance Committee reserves the right to dismiss the selected contractor if the required work performance is not being met.

#### ARTICLE XI

Section 1. Amendments to the Bylaws may be made only at the annual or special meetings by a two-thirds (2/3) majority of the percentage distribution.

Section 2. Notification of amendment will be given to all members in writing 30 days prior to vote.

We, the undersigned member companies of the committee, agree to support the Bylaws.



**Appendix E**  
**Noise Resources (2 Versions)**

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# DRAFT-2001

(Alternative C)

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## Notice to Lessees and Operators on Onshore Oil and Gas Leases Within the Jurisdiction of the Farmington Field Office (FFO) (NTL 01-1 FFO)

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### Management of Sound Generated By Oil and Gas Production and Transportation

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**I. Introduction** – Increases in the level of sound (noise) generated from the production and pipeline transportation of oil and gas has occurred in the San Juan Basin over the last four years. This increase is generated primarily from the increased need to use equipment such as compressors and pumping units which operate on a continuous basis. The increase in noise affects natural resource values and management of a number of designated special areas [special management areas (SMAs), areas of critical environmental concern (ACECs), research natural areas (RNAs), etc.]

**II. Purpose** – The Bureau of Land Management (BLM) recognizes solitude (lack of or limited sound) as a part of the natural environment that requires protection and that reduction of noise may be required of federal oil and gas lessees/operators. The following requirements are for reducing noise levels on federal and Indian oil and gas leases under the jurisdiction of the Farmington Field Office (FFO).

**III. Noise Sensitive Areas** – All or a portion of approximately 88 specially managed areas established through the BLM land use planning process are being identified as noise sensitive areas. Also, part or all of seven U.S. Forest Service (USFS) areas, all Bureau of Reclamation (BOR) surface around Navajo Reservoir, and one National Park Service (NPS) area are identified as NSAs.

**IV. Noise Standards** – Noise will be measured on the “A” scale, using the attached protocol (see Appendix B). The sound level (A scale) must equal 48.6 dB(A) over a continuous 24-hour period (i.e., 48.6 dB (A)Leq). This requirement applies to oil and gas lease operations which operate on a continual (> 8 hrs./day), long-term basis (> 1 week in duration). The NTL **will not** apply to transient operations such as construction, drilling, completion or workover activities or temporary non-oil and gas sound sources. These activities will be handled on a case-by-case basis should a conflict be identified during the permitting process. The NTL does not apply to short-term events such as venting a well, compressor start-ups, etc.

For noise sources located inside NSAs, the standard is 48.6 dB(A)Leq, at 300 ft. in all directions from the noise source. For noise sources located outside of designated NSA's, the standard of 48.6 dB(A)Leq must be met at the boundary of the NSA's. Noise sources located within 300 feet of the NSA boundary will be allowed to meet the standard 300 feet from the source. For noise sources involving federal or Indian leases located near occupied dwellings or buildings, the standard of 48.6 dB(A)Leq will be met 100 feet from such structure. For noise sources located within incorporated city or township limits, the standards of that municipal jurisdiction will normally be applied. However, if the municipal standard is less stringent (> 48.6 dB(A)Leq) or there isn't a municipal standard, BLM will enforce this NTL for noise sources associated with federal minerals.

Stricter standards may be applied to NSA's identified by an asterisk in Appendix A. In these instances, BLM may need the flexibility to adjust the general noise standard. BLM, USFS, BOR and NPS staffs will work with the operator on a case-by-case basis to achieve an acceptable level of noise mitigation. Factors considered in this process would be (1) the particular aspects of the area (i.e., landscape, topography, etc.), (2) resource values and uses, (3) public values and uses and (4) the extent the 48.6 dB(A)Leq impairs values and uses. **The operator must obtain approval prior to setting or operating a noise source affecting these areas.** In addition to areas identified in Appendix A, new SMAs, camping, picnic or trail areas may be identified and/or developed by land management agencies. This policy would be implemented in and/or near these areas after a 30-day notice to the affected parties.

With the exception of the NSA's identified by an asterisk in Appendix A, newly installed noise sources which affect NSAs (inside or adjacent to exterior boundaries) must meet the noise standard 30 days from the date the source is set in the field. All major renovation and/or replaced noise sources must meet the standard 30 days from the date the equipment is renovated and/or replaced. Existing noise sources affecting NSAs will be brought into compliance during a 5-year time frame (see Appendix A). A condition of approval will be included with approved Applications for Permit to Drill (APDs) requiring the operator to meet the noise standard for sources at new well locations which are permitted within or adjacent to an NSA. It is the intention of FFO to apply these same standards to rights-of-way grants.

**V. Procedures** – Prior approval is required before setting a noise source that could affect the NSA's indicated by an asterisk in Appendix A. A Notice of Intent (NOI) Sundry (Form 3160.5) must be submitted to the BLM for approval by the authorized officer (AO). A copy of the NOI should be sent to the appropriate surface managing agency (SMA). The notice must include (1) the location for the proposed noise source [township, range, section, footage or quarter/quarter (i.e., NE/4SE/4)], (2) name of the well location or facility type, (3) type of noise source (i.e., compressor, pumping unit, etc.) and (4) any other information required by the AO.

The appropriate surface managing agency will work with the applicant when setting the noise source in the NSA's indicated by an asterisk in Appendix A. The operator must provide BLM with noise level measurements within 24 hours of the unit being put into operation or as otherwise agreed to. Measurements must be taken following the attached protocol at points designated by BLM or the land management agency. The standard determined during the approval process must be met when the unit is put into operation.

With the exception of the NSA's identified by an asterisk, a Subsequent Report Sundry (SR) will be required for the placement of all new noise sources or the exchange of all existing units within, or affecting designated NSA's that do not require an NOI. The SR must be submitted within 30 days of setting the unit. The SR must include the same information as an NOI, plus the date the unit was set in the field. **A notification Sundry is not required for noise sources that fall outside of the requirements of this and the previous paragraph.**

Variances may be granted on a case-by-case basis by the AO. To obtain a variance, a Notice of Intent Sundry (Form 3160.5) or a letter must be submitted to BLM for approval. Copies of the Sundry or letter should be sent to any appropriate surface managing agency. The sundry or letter must include the same information as an NOI.

Failure to comply with the above policy and conditions of approval may result in an assessment for noncompliance being issued pursuant to 43 Code of Federal Regulations (CFR) 3163.1 by BLM staff. Any and all instructions, orders, or decisions issued are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3164 and 43 CFR 4.700.

**APPROVED:** Date: \_\_\_\_\_

\_\_\_\_\_  
Farmington Field Manager

# DRAFT

(Alternative D)

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## Notice to Lessees and Operators on Onshore Oil and Gas Leases Within the Jurisdiction of the Farmington Field Office (FFO) (NTL 01-1 FFO)

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### Management of Sound Generated By Oil and Gas Production and Transportation

---

**I. Introduction** – Increases in the level of sound (noise) generated from the production and pipeline transportation of oil and gas has occurred in the San Juan Basin over the last four years. This increase is generated primarily from the increased need to use equipment such as compressors and pumping units, which operate on a continuous basis. The increase in noise affects natural resource values and management of a number of agency designated special areas [special management areas (SMAs), areas of critical environmental concern (ACECs), research natural areas (RNAs), etc.] Noise sensitive areas (NSAs) were determined as visitor use areas, wilderness, semi-primitive recreation areas, habitat for threatened or endangered species, raptor nesting/roosting sites, recreational trails and sites where people live and work.

**II. Purpose** – The Bureau of Land Management (BLM) recognizes solitude (lack of or limited sound) as a part of the natural environment that requires protection and that reduction of noise may be required of federal oil and gas lessees/operators. The following requirements are for reducing noise levels on federal and Indian oil and gas leases under the jurisdiction of the Farmington Field Office (FFO).

**III. Noise Sensitive Areas** – All or a portion of approximately 53 specially managed areas established through the BLM land use planning process are being identified as noise sensitive areas (NSAs). Also, part or all of seven U.S. Forest Service (USFS), all Bureau of Reclamation (BOR) surface around Navajo Reservoir, and one National Park Service (NPS) area are identified as NSA's.

**IV. Noise Standards** – Noise will be measured on the "A" scale, using the attached protocol (see Appendix B). The sound level (A scale) must equal 48.6 dB(A) over a continuous 24-hour period (i.e., 48.6 dB (A)Leq). This requirement applies to oil and gas lease operations which operate on a continual (> 8 hrs./day), long-term basis (> 1 week in duration). The NTL **will not** apply to transient operations such as construction, drilling, completion or workover activities or temporary non-oil and gas sound sources. These activities will be handled on a case-by-case basis should a conflict be identified during the permitting process. The NTL does not apply to short-term events such as venting a well, compressor start-ups, etc.

**V. Application of Standards within NSAs** - Noise control will be receptor or boundary focused as determined by agency management guidelines established for the designated SMAs, ACECs or other designations. Receptor focused control will apply to 41 BLM and 4 USFS NSAs. All Bureau of Reclamation (BOR) surface around Navajo Reservoir will be receptor-focused. Receptor-focused areas may include campgrounds, picnic areas, shoreline etc. Boundary focused control will include all designated acreage within 12 BLM, 3 USFS, and 1 NPS NSAs (See Appendix A).

#### **Receptor Focused NSAs**

- Noise standards of 48.6 dB(A)Leq will be achieved at established agency receptor points within the NSAs. Established receptors are generally defined as visitor use areas, camp or picnic areas, habitat for threatened or endangered species, archaeological sites, and recreation trails. Receptors may vary in size from a single point source to several acres based on the features and resource components which are being managed for sound. The agency will work with the operator to establish the applicable receptor points. Buffers of 0 to 100 feet from the defined receptor may be established.

#### **Boundary Focused NSAs**

- For noise sources located inside NSAs, the standard is 48.6 dB(A)Leq, at 400 ft. in all directions from the noise source. For noise sources located outside of designated NSA's, the standard of 48.6 dB(A)Leq must be met at the boundary of the NSA's. Noise sources located within 400 feet of the NSA boundary will generally be allowed to meet the standard 400 feet from the source. The survey protocol described in will be used as a guide to measure sound sources.

#### **Dwellings, residences, and buildings**

- For noise sources involving federal or Indian leases located near occupied dwellings or buildings, the standard of 48.6 dB(A)Leq will be met 100 feet from such structure. Policy will not apply to unoccupied lands but can be enforced when those lands are developed. For noise sources located within incorporated city or township limits, the standards of that municipal jurisdiction will normally be applied. However, if there isn't a municipal standard, BLM will enforce this NTL for noise sources associated with federal minerals.

Stricter standards may be applied to NSA's identified by an asterisk in Appendix A. In these instances, BLM may need the flexibility to adjust the general noise standard. BLM, USFS, BOR and NPS staffs will work with the operator on a case-by-case basis to achieve an acceptable level of noise mitigation. Factors considered in this process would be (1) the particular aspects of the area (i.e., landscape, topography, etc.), (2) resource values and uses, (3) public values and uses and (4) the extent the 48.6 dB(A)Leq impairs values and uses. In addition to areas identified in Appendix A, new SMAs, camping, picnic or trail areas may be identified and/or developed by land management agencies. This policy would be implemented in and/or near these areas after a 30-day notice to the affected parties.

## VI. Implementation of NTL

Upon implementation of the NTL, affected operators in or adjacent to NSAs will be provided general ownership maps depicting the NSAs. Detailed descriptions of the NSAs will be maintained and available at local administering agency offices. With the exception of the NSAs identified by an asterisk in Appendix A, newly installed noise sources which affect NSAs (inside or adjacent to exterior boundaries) must meet the noise standard 60 days from the date the source is set in the field. All major renovation and/or replaced noise sources must meet the standard 60 days from the date the equipment is renovated and/or replaced. A condition of approval will be included with approved Applications for Permit to Drill (APDs) requiring the operator to meet the noise standard for sources at new well locations which are permitted within or adjacent to an NSA. It is the intention of FFO to apply these same standards to rights-of-way grants.

For existing sources of noise within defined NSAs, the operator shall inventory these locations and submit them to the BLM along with a proposed compliance plan for meeting the NTL standard within 90 days of approval of the NTL. The compliance plan submitted by the operator must demonstrate compliance of all applicable noise sources within 5 years which will incorporate the agency time frames compliance priority goals noted in appendix A. All major renovation and/or replaced noise sources must meet the standard 60 days from the date the equipment is renovated and/or replaced. All major renovation and/or replaced noise sources must meet the standard 60 days from the date the equipment is renovated and/or replaced.

**V. Procedures** – A subsequent report (SR) Sundry (Form 3160.5) must be submitted to the BLM for approval by the authorized officer (AO) within 5 days of setting the equipment which falls outside the noise standard and must be mitigated. **A notification Sundry is not required for noise sources that fall outside of the requirements of this and the previous paragraph.** A copy of the SR should be sent to the appropriate surface managing agency (SMA). Prior approval is required before setting a noise source that could affect the threatened or endangered and raptor NSA's indicated in Appendix A. The notice must include (1) the location for the proposed noise source [township, range, section, footage or quarter/quarter (i.e., NE/4SE/4)], (2) name of the well location or facility type, (3) type of noise source (i.e., compressor, pumping unit, etc.), (5) serious safety considerations and (5) any other information required by the AO.

- For existing and new noise sources the surface managing agency will initially work with the applicant to establish the applicable receptor points to which the NTL standard will apply. In addition, it is the intent of BLM to work with applicants and use flexibility for mitigation of sound with boundary focused areas as well. Once the receptor is permanently defined based upon NSA maps provided by BLM, the operator must provide BLM with noise level measurements within the 60-day period and the standard determined during the approval process must be in conformance after this period. Measurements must be taken following the established protocol at points designated by BLM or other land management agencies.

Variances may be granted on a case-by-case basis by the AO. To obtain a variance, a Notice of Intent Sundry (Form 3160.5) or a letter must be submitted to BLM for approval. Copies of the Sundry or letter should be sent to any appropriate surface managing agency. The sundry or letter must include the same information as an NOI.

Failure to comply with the above policy and conditions of approval may result in an assessment for noncompliance being issued pursuant to 43 Code of Federal Regulations (CFR) 3163.1 by BLM staff. Any and all instructions, orders, or decisions issued are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3164 and 43 CFR 4.700.

**APPROVED:** Date: \_\_\_\_\_  
\_\_\_\_\_ Farmington Field Manager



**Appendix F**  
**Isolated Parcels Available for Disposal**

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## Lands Remaining From 1988 RMP Disposal List

Legals	Acreage
T. 32 N., R. 10 W. NMPM	
Sec. 32: Lot 1	40.48
T. 32 N., R. 11 W. NMPM	
Sec. 10: Lot 1	43.83
Sec. 19: SE1/4NW1/4	40
Sec. 20: NW1/4SW1/4	40
T. 32 N., R. 12 W. NMPM	
Sec. 13: SE1/4SE1/4	40
Sec. 28: E1/2NE1/4, NE1/4SE1/4	120
Sec. 35: S1/2NE1/4	80
T. 32 N., R. 13 W. NMPM	
Sec. 35: E1/2SW1/4	80
T. 31 N., R. 11 W. NMPM	
Sec. 13: NE1/4NE1/4	40
T. 31 N., R. 12 W. NMPM	
Sec. 1: Lots 6 & 7	72.89
Sec. 25: N1/2NW1/4	80
T. 30 N., R. 12 W. NMPM	
Sec. 1: Lots 5, 6, 7, 8	153.99
Sec. 15: Lots 1 & 2	80.45
Sec. 19: Lots 1, 60, SW1/4SW1/4NE1/4	78.78
Sec. 20: Lots 12, 14, 15 & 17	39.66
T. 30 N., R. 13 W., NMPM	
Sec. 20: NE1/4NW1/4, SW1/4NE1/4	80
Sec. 26: NW1/4SE1/4SE1/4SW1/4, SW1/4SW1/4SE1/4SW1/4	5
Sec. 27: NW1/4NW1/4SE1/4	10
Sec. 29: W1/2NE1/4	80
Sec. 32: E1/2NE1/4	80
Sec. 33: N1/2	320
Sec. 34: NE1/4NW1/4	40
T. 30 N., R. 15 W., NMPM	
Sec. 1: N1/2N1/2	160
Sec. 17: SW1/4SW1/4	40
Sec. 18: SE1/4SE1/4	40
Sec. 19: NE1/4NE1/4, N1/2SE1/4NE1/4, N1/2S1/2SE1/4NE1/4	70
Sec. 20: NW1/4NW1/4, N1/2SW1/4SW1/4NW1/4 SE1/4SW1/4NW1/4, N1/2SW1/4NW1/4	75

T. 30 N., R. 16 W., NMPM	
Sec. 2: Lots 3 & 4, S1/2NW1/4	157.84
T. 29 N., R. 9 W., NMPM	
Sec. 30: Lot 6	10.47
T. 29 N., R. 11 W., NMPM	
Sec. 13: NE1/4SW1/4	40
Sec. 15: SW1/4NW1/4	40
Sec. 27: W1/2 SE1/4SW1/4SW1/4	5
Sec. 28: SE1/4SW1/4, SW1/4SE1/4	80
Sec. 33: N1/2NW1/4NE1/4NE1/4	5
T. 29 N., R. 12 W., NMPM	
Sec. 5: SE1/4NE1/4SW1/4	10
Sec. 17: NE1/4NE1/4SW1/4	10
Sec. 19: S1/2SE1/4NE1/4SW1/4, SW1/4SE1/4 NE1/4	15
Sec. 20: NE1/4NE1/4SW1/4	10
Sec. 21: Lots 10, 11, & 12	55.47
Sec. 26: Lot 1	19.96
Sec. 27: N1/2N1/2NE1/4, SE1/4NW1/4NE1/4, SW1/4NE1/4NE1/4, E1/2SE1/4NE1/4NE1/4, E1/2SW1/4NW1/4NE1/4	70
Sec. 28: Lot 2	6.2
T. 29 N., R. 13 W., NMPM	
Sec. 4: SW1/4NW1/4NE1/4	10
Sec. 5: Lot 6, SE1/4NE1/4SW1/4	19.98
Sec. 6: Lot 9, W1/2SW1/4SE1/4	24.95
Sec. 7: Lot 1, NW1/4NW1/4NE1/4, W1/2SW1/4NW1/4NE1/4	19.64
Total	2639.59

**Appendix G**  
**Example of Conditions of Approval and  
Standard Terms and Conditions for  
Oil and Gas Leasing Development in the  
Farmington Field Office**

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**BLM CONDITIONS OF APPROVAL**

Operator\_\_\_\_\_ Well Name\_\_\_\_\_

Legal Location\_\_\_\_\_ Sec. \_\_\_\_\_ T. \_\_\_\_\_ R. \_\_\_\_\_

Lease Number\_\_\_\_\_ Field Inspection Date\_\_\_\_\_

The following conditions of approval will apply to this well unless a particular Surface Managing Agency (SMA) or private surface owner has supplied to BLM and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2. A copy of these conditions of approval shall be present on the location during construction, drilling and reclamation activity.

An agreement between the operator and fee land owner will take precedence over BLM surface stipulations unless (In reference to 43 CFR Part 3160) 1) BLM determines that the operator's actions will affect adjacent Federal or Indian surface, or 2) the operator does not maintain well area and lease premises in a workmanlike manner with due regard for safety, conservation and appearance, or 3) no such agreement exists, or 4) in the event of well abandonment, minimal Federal restoration requirements will be required.

1. *The operator or his contractor will contact the BLM Farmington Field Office, Environmental Protection Staff, at (505) 599-8900, (approximately 48 hours prior to construction activities) or (upon site completion prior to moving on drilling rig).*

2. No construction, drilling or completion activities shall be conducted between:
- November 1 and March 31 because of eagle wintering habitat.
  - December 1 and March 31 because of deer/elk wintering habitat.
  - March 1 to June 30 because of active raptor nesting.
  - May 1 to July 15 because of antelope fawning.

3. A \_\_\_ (foot) tree screen will be left on the \_\_\_ sides of the location.

4. The top \_\_\_\_\_ inches of soil material will be stripped and stockpiled in the construction zones of the well pad. The stockpiled soil material will be spread on the reclaimed portions of the pad [including the reserve pit, cut and fill slopes] prior to reseeding. Spreading shall not be done when the ground or topsoil is frozen or wet.

5. Pits will be lined with an impervious material at least 8 mils thick. Prior to closing the pit, the liner will be cut off at mud level. The excess liner will be hauled to a licensed disposal area.

6. Pits will be lined with an impervious material at least 8 mils thick. Prior to closing the pit, the liner will be cut off at mud level. The excess liner will be hauled to a licensed disposal area.

7. Earthen berm(s) will be placed on the \_\_\_\_ side(s) of the location between the reserve pit and the wash.

8. The \_\_ corner of the well pad will be rounded off to avoid

9. The wash shall be diverted around the \_\_ side of the well pad.

10. Diversion ditch(es) will be constructed on the \_\_ side of location above/below (circle one) the cut slope, draining to the\_\_.

11. A culvert of sufficient size (minimum 18 inches) will be placed where the drainage crosses the access road.

12. The proposed access road shall utilize the upgraded 2-track trail approximately \_\_ (feet or miles) as agreed upon during on-site inspection. Remainder of planned access road will follow flagged route.

13. The access road shall be rerouted around the \_\_ edge of the well pad during construction and drilling activities for safety reasons. Upon completion of drilling and cleanup, the road will be returned to its original alignment.

14. The final cut slope shall not exceed a \_\_ ratio. The final fill slope shall not exceed a \_\_ ratio. To obtain this ratio, pits and slopes shall be backsloped into the pad upon completion of drilling. Construction slopes can be much steeper during drilling, but will be recontoured to the above ratio during reclamation. **Production equipment [including any facilities associated with pipeline construction] shall be placed on location as not to interfere with reclaiming the cut and fill slopes to their proper ratio. If equipment is found to interfere with the proper reclamation of the slope, the company will be required to move the equipment so proper recontouring can occur.**

15. All above ground structures shall be painted to blend with the natural color of the landscape. The paint used shall be:

- a. Federal 595a-34127 (Juniper Green)
- b. Munsell Soil Color 5Y 6/1 (Slate Gray)
- c. Munsell Soil Color 2.5Y 6/2 (Carlsbad Canyon Brown).
- d. Munsell Soil Color 10YR 6/3 (Desert Brown)
- e. The leg-off will not be painted the above color, but instead shall be left unpainted such that the rusty finish on the pipe would blend in with the surroundings.

16. Hand seeding with hydro-mulch, excelsior netting and/or mulch with netting \_\_ required on \_\_ slopes. Mulch should be grass or straw spread at 2,000 to 3,000 pounds per acre (or one to two inches deep).

17. No hardwood tree with a diameter of ten inches or more at the base or any Ponderosa pine, Douglas-fir or aspen tree is to be removed or damaged without approval from the BLM Authorized Officer (AO).

18. If in the conduct of operations, paleontological materials (fossils) are observed, lessee shall immediately contact the BLM. Lessee shall cease any operations that would result in the destruction of such objects. The results of further investigation will dictate site-specific stipulations for avoidance or salvage of any potentially significant paleontological resources.

19. The proximity of residences in the area places this well location under Zone 2 noise mitigation requirements. This requires that the operator file a sundry notice prior to placing a compressor unit on location (should one be needed during the production phase of this well).

The sundry notice will include information on why the compressor is needed, the estimated time the compressor will be in use, and the manufacturer's data (size of unit, horsepower, model type and type of motor). A 1:2400 (7.5 minute series) map will be submitted with the sundry. The map will show the proposed compressor location and all noise sensitive areas (fee surface, residences, schools, churches, farms, known ACECs and SMAs, etc.) within a two-mile radius of the well location. In addition, a 24-hour time weighted average, background noise survey may be required.

\*\*\*Adjust stipulation wording for Zone 1 or Zone 3.

20. No well and/or production equipment within the irrigable fields of the Navajo Indian Irrigation Project will exceed two feet above the natural ground surface elevation, and will be adequately barricaded for safety.

21. All cattleguards shall have grid identification marks welded into them indicating ownership and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) load rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads, (exceeding H-20 loading) are anticipated. (See BLM standard drawings for cattleguards). Cattleguard grid width shall not be less than eight feet and length of not less than 14 feet. A wire gate with a minimum width of 16 feet will be provided on one side of the cattleguard.

22. Standards for Cattleguards: All cattleguards must have clearly visible identification marks welded into them indicating the ownership, wellname and number associated with the cattleguard.

23. Trees shall be delimbed and trunks stacked on the side of well pad for wood gatherers. Limbs shall be stockpiled on one corner of the location for future rehabilitation of well pad. After reseedling, limbs shall be placed back on the slopes and walked down or chipped for mulch.

24. All trees, 6 inches diameter or less, and brush will be incorporated into fill for erosion control; trees, 6 inches diameter or greater, will be cut and delimbed; trunks will be left whole along access or existing road for wood gathering; and slash will be put back on pad cut and fill slopes after reseedling.

25. Prior to crossing, using or paralleling any improvement on public land, operator shall contact the owner of the improvement to obtain mitigating measures to prevent damage to the improvements.

26. All cut fences are to be tied to H-braces prior to cutting. The opening will be protected as necessary during construction to prevent the escape of livestock. A temporary closure will be installed on all cut fences the same day the fence is cut. A permanent cattleguard will be installed and maintained in any cut fence unless otherwise stipulated in writing. A 16-foot gate will be installed adjacent to all new cattleguards.

27. If surface owner changes any of these conditions of approval, company will contact the AO before implementing surface owner stipulations.

28. **During clearing activities, trees in piñon-juniper type vegetation removed from the well pad and access road shall be made available for wood gathering and slope stabilization.** Trees shall be moved aside prior to any soil disturbing activities. Care will be taken not to mix soil with the trees. Trees left for wood gathering shall be cut [twelve inches or less from the ground], delimbed, and the trunks, **6 inches or more in diameter** shall be removed and placed either by the side of the access road [opposite the proposed pipeline], or moved to the end of the road, or to a road junction for easy access for wood gatherers and to reduce vehicle traffic on the well pad. **Trees with a trunk diameter less than 6 inches shall be used to stabilize slopes and control erosion.** These trees may be removed entirely without delimbing and placed within the construction zone of the pad. During reclamation these trees will be placed on the construction slopes, on the reserve pit area, and the parts of the pad not used for production purposes. The trees will be walked down.

29. Reserve pits will be closed and rehabbed 90 days after completion or 120 days after the well is spudded. All reserve pits remaining open after the 90 days will need written authorization from the AO. This requirement is addressed in the General Requirements of Onshore Order # 7.

30. Compressor units on this well location not equipped with a drip pan for containment of fluids shall be lined with an impervious material at least 8 mils thick and a twelve inch berm. The compressor will be painted to match the well facilities. Any variance to this will be approved by the AO. When compressor units are washed, or any other equipment associated with the locations, the fluids (i.e., scrubber cleaners) will be properly disposed of to avoid ground contamination or hazard to livestock or wildlife.

### **Rights-of-Way Special Stipulations for Roads and Pipelines**

1. The proximity of residences in the area places this well location under Zone 2 noise mitigation requirements. This requires that the operator file a sundry notice prior to placing a compressor unit on location (should one be needed during the production phase of this well).

2. The sundry notice will include information on why the compressor is needed, the estimated time the compressor will be in use, and the manufacturer's data (size of unit, horsepower, model type, and type of motor). A 1:24000 (7.5-minute series) map will be submitted with the sundry. The map will show the proposed compressor location and all noise sensitive areas (fee surface, residences, schools, churches, farms, known ACECs and SMAs, etc.). Within a two-mile radius of the well location. In addition, a 24-hour time weighted average, background noise survey may be required.



\*\*\*Can adjust wording to suit your requirements.

This approval is for operational activities only. Surface commingling and/or off-lease sales, storage, usage and measurement require separate approval by the AO.

3. Construction activities and surface disturbance will be prohibited during the period from
  - A. November 1 to March 31 for the protection of eagle winter habitat.
  - B. December 1 to March 31 for the protection of deer and elk winter habitat.
  - C. March 1 to June 30 for the protection of an active raptor nest site.
  - D. May 1 to July 15 for the protection of antelope fawning.

Exceptions must have prior written approval from the AO.

4. Performing construction maintenance activities outside the existing disturbed area of the existing road requires a cultural survey and clearance.

5. The holder shall contact the AO at least three (3) days prior to commencing construction and/or any surface disturbing activities (\_\_\_\_ may want to be present). The AO may require and schedule a preconstruction conference with holder prior to the holder's commencing construction and/or surface disturbing activities on the right-of-way. The holder and/or their representative shall attend this conference. The holder's contractor, or agents involved with construction and/or any surface disturbing activities associated with this right-of-way shall also attend this conference to review the stipulations of the grant including the plan(s) of development, as applicable.

6. Performing construction maintenance activities outside the existing disturbed area of the existing road requires a Threatened or Endangered plant survey and clearance.

7. The AO shall require and schedule a preconstruction conference with the holder prior to commencing construction and/or surface disturbing activities on the right-of-way. The holder and/or his representative shall attend this conference. The holder's contractor, or agents involved with construction and/or any surface disturbing activities associated with the right-of-way, shall also attend this conference to review the stipulations of the grant including the plan(s) of development, as applicable.

At least five days prior to this conference, the holder shall provide maps or survey plats of this project to operators of all pipelines crossed or paralleled on public/Federal lands, and contact and invite them to attend this meeting. Determining the names and contact points of these operators is the responsibility of the holder. If requested holder shall certify these contacts were made and that the required information was given.

8. The holder shall construct, operate, and maintain the facilities, improvements, and structures within this right-of-way in strict conformity with the plans(s) of development which was (were) approved and made part of the grant on \_\_\_\_\_. Any relocation, additional construction, or use that is not in accord with the approved plan(s) of development, shall not be initiated without the prior written approval. A copy of the complete right-of-way grant, including all stipulations and approved plan(s) of development, shall be made available on the right-of-way area during construction,

operation and termination to the AO. Noncompliance with the above will be grounds for an immediate temporary suspension of activities if it constitutes a threat to public health and safety of the environment.

9. The holder shall not initiate any construction or other surface disturbing activities on the right-of-way without prior written authorization. Such authorization shall be a written Notice to Proceed (Form 2800-15) issued by the AO. Any Notice to Proceed shall authorize construction or use only as therein expressly stated and only for the particular location or use therein described.

10. Boundary adjustments in \_\_\_\_ shall automatically amend this right-of-way to include that portion of the facility no longer contained within the above described \_\_\_\_). In the event of an automatic amendment to this right-of-way grant, the prior on-lease/unit conditions of approval of this facility will not be affected even though they would now apply to facilities outside of the lease/unit as a result of a boundary adjustment. Rental fees, if appropriate shall be recalculated based on the conditions of this grant and the regulations in effect at the time of an automatic amendments.

11. The pole structure of the powerline shall be constructed as illustrated in the drawings submitted in the application for this right-of-way and included in this grant as Exhibit \_\_\_\_\_. Any deviation from the illustration specifications requires written approval of the AO.

12. Unless otherwise agreed to by the AO in writing, powerlines shall be constructed in accordance to standards outlined in "Suggested Practices for Raptor Protection on Powerlines," Raptor Research Foundations, Inc., 1981. The Holder shall assume the burden and expense of proving that pole designs not shown in the above publication are "eagle safe." Such proof shall be provided by a raptor expert approved by the AO. The BLM reserves the right to require modifications or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

13. Clearing, grading and other disturbance of soil and vegetation shall be limited to the minimum area required for construction, and shall include:

A. A maximum width of \_\_\_\_ feet.

B. Trimming trees in preference to cutting trees and cutting trees in preference to bulldozing them as directed by the AO.

C. Not clearing trees to allow passage of equipment for stringing the line without the prior written approval of the AO.

D. That trees, in piñon-juniper type vegetation, cleared from the right-of-way shall be left for wood gathering activities. The trees shall be moved aside prior to any soil disturbing activities. Do not mix soil with the trees during right-of-way clearing. The trees shall be delimbed and the trunks shall be moved and placed either by the side of the right-of-way, if it parallels a road, or moved to the end of the right-of-way for easy access for wood gatherers and to prevent vehicular travel on the R/W.

After reseeded, the branches shall be placed back on the R/W and “walked down” or chipped. Any rocks removed from the construction area during clearing and/or ditching operations shall be scattered back on the right-of-way in a random arrangement and not in bunches. Redistributing these materials on the right-of-way during reclamation activities shall be accomplished by using rubber-tired equipment.

E. That clearing the right-of-way in vegetative types, other than piñon-juniper types (i.e., sagebrush flats) shall consist of knocking (scalping) off the tops of brush or removal of all plant parts only at pole locations.

14. If “cross-country” access is necessary, clearing vegetation or grading a roadbed will be avoided wherever practicable. All construction and vehicular traffic shall be confined to the right-of-way or designated access routes, roads, or trails unless otherwise authorized in writing by the AO. All temporary roads used for construction shall be rehabilitated after construction is completed. Only one road or access route will be permitted to each site requiring access.

15. If the right-of-way is separate from any permanent access, roads shall not be constructed within the right-of-way where the terrain will allow vehicles to maneuver without the aid of such roads.

16. The holder shall coordinate with the AO on the design and color of the poles and transmission lines to achieve the minimal practicable visual impacts.

17. The holder shall use non-reflecting lines and conductors at the following location(s):

18. Construction holes left open over night shall be covered. Covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through and into a hole.

19. The holder shall evenly spread the excess soil excavated from pole holes within the right-of-way and in the immediate vicinity of the pole structure.

20. Any roads used exclusively for construction purposes shall be adequately closed to all vehicular travel, and rehabilitated after completion of construction. The manner of closure shall be determined in conjunction with a representative of the AO.

21. No surface disturbing activities shall take place on the subject right-of-way until the associated APD is approved. The holder will adhere to special stipulations in the Surface Use Program of the approved APD, relevant to any right-of-way facilities.

22. No surface disturbance or construction activities will be allowed within \_\_\_ feet of which shall be clearly marked as specified by the AO. Any deviation from this requirement shall have the prior approval of the AO.

23. The holder shall provide for the safety of the public entering the right-of-way. This includes, but is not limited to, barricades for open trenches, flagmen/women with communication systems for single-lane roads without intervisible turnouts, and attended gates for blasting operations.

24. A buffer strip of vegetation \_\_\_ feet wide shall be left between areas of surface disturbance and riparian vegetation as determined necessary by the AO.

25. The holder shall mark the exterior boundaries of the right-of-way with stake and/or lath at 100- to 200-foot intervals. The intervals may be varied at the time of staking at the discretion of the AO. The tops of the stakes and/or laths will be painted and the laths flagged in a distinctive color as determined by the holder. The survey station numbers will be marked on the boundary stakes and/or laths at the entrance to and the exit from public land. The holder shall maintain all boundary stakes and/or laths in place until final cleanup and restoration is completed and approved by the AO. The stakes and/or laths will then be removed at the direction of the AO.

26. The holder shall survey and clearly mark the centerline and/or exterior limits of the right-of-way, as determined by the AO (set reference markers for all angle stations [P.I.] on both sides of the right-of-way prior to construction activities).

27. The holder shall place slope stakes, culvert location and grade stakes, and other construction control stakes as deemed necessary by the AO to ensure construction in accordance with the plan of development. If stakes are disturbed, they shall be replaced before proceeding with construction.

28. No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of 6 inches deep, the soil shall be deemed too wet.

29. When construction activity in connection with the right-of-way breaks or destroys a natural barrier used for livestock control, gaps thus opened shall be fenced to prevent drift of livestock. The subject natural barrier shall be identified and fenced by the holder as per instructions of the AO.

30. Holder is responsible to contact the grazing lessee(s) named below, prior to crossing any fence on public land or any fence between public and private land, and to offer the lessee(s) an opportunity to be present when the fence cut(s) is made so the lessee(s) can be satisfied that the fence is adequately braced and secured.

Lessee \_\_\_\_\_ Phone \_\_\_\_\_ Address \_\_\_\_\_

31. Maintain a minimum of ten (10) feet of undisturbed surface between fence lines and roads that are constructed parallel to fences.

32. Each fence crossed by this right-of-way shall be braced and secured to prevent slacking of the wire, before cutting the wire. The opening thus created shall be temporarily closed as necessary during construction to prevent passage of livestock. Upon completion of construction,

A. Install a cattleguard with an adjacent sixteen (16)-foot gate. The cattleguard shall be constructed to BLM specifications.

B. Install a metal gate constructed to BLM specifications and capable of being locked, but not a cattleguard.

C. Reconstruct the fence to BLM specifications.

33. Those segments of road where grade is in excess of ten percent for more than 300 feet shall be designed by a professional engineer.

34. Cathodic right-of-way clearing shall include:

A. Be limited to knocking off the tops of brush in vegetative types other than piñon/juniper type vegetation. Grading and removal of the grass cover or low growth vegetation is prohibited, except immediately along the ditch line, and in rough or broken ground.

B. Provide that trees, in piñon-juniper type vegetation, cleared from the right-of-way shall be left for wood gathering activities. The trees shall be moved aside prior to any soil disturbing activities. Do not mix soil with the trees during right-of-way clearing.

C. Be limited to a width of \_\_\_\_ feet.

35. The cathodic cable shall be spanned above ground from Sta. \_\_ to Sta. \_\_.

36. The cathodic cable shall be constructed in the access road or within fifteen (15) feet of the access road.

37. The cathodic cable shall be constructed in the access road or within fifteen (15) feet of the access road from Sta. \_\_ to Sta. \_\_.

38. No blading of the right-of-way is permitted.

39. Suitable topsoil material removed in conjunction with clearing and stripping shall be conserved in stockpiles (within the right-of-way, at the following staked locations:\_\_\_\_). Topsoil shall be stripped to an average depth of \_\_\_\_ inches (road strips only). Spread the topsoil on ROW during reclamation if the road will not be used longer than (2) years; if it will be used for a longer time, spread the topsoil on slopes of the road and road ditch.

40. Sidehill cuts of more than three (3) feet are not permitted. Areas requiring cuts greater than this shall be terraced so none are greater than three (3) feet.

41. Holder is encouraged to use a "rock trencher" or "rock saw" type of machine (or any other technology that limits environmental disturbance) when any rock is encountered to aid in minimizing environmental disturbance. Use of these types of equipment may be required by BLM on specific locations. Use explosives in any amount or a hydraulic or cable ripper for intermittent distances of more than fifty feet shall be approved on a case-by-case basis by the AO prior to use.

42. This road shall have a minimum driving surface of 14 feet, a maximum bladed width of \_\_ feet excluding turnout ditches and turnouts, and a maximum grade of 10 percent (pitches over 10 percent that are less than 300 feet in length may be allowed).

43. Crowning and ditching on both sides of the road are required. The road cross section will conform to the cross section diagrams available from BLM. The crown shall have a grade of approximately two percent (i.e., two-inch crown on a 14-foot-wide road).

44. Drainage control shall be ensured over the entire road through the use of borrow ditches, drainage dips, outsloping, insloping, natural rolling topography, and/or turnout (lead-off) ditches. Every drainage dip shall drain water into an adjacent turnout ditch.

45. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter is 18 inches. A \_\_-inch-diameter culvert shall be placed at locations discussed during the onsite inspection.

46. The pipeline shall be laid above ground from Sta. \_\_ to Sta. \_\_, and no blading shall be allowed between these stations.

47. Place the pipeline in the existing road or within ten (10) feet of the edge of the traveled surface of the existing road (from Sta. \_\_ to Sta. \_\_).

48. Bury the pipeline in the existing road or within twenty (20) feet of the edge of the traveled surface of the existing road.

49. The holder shall construct low-water crossings in a manner that will prevent any blockage or restriction of the existing channel. Material removed shall be stockpiled for use in rehabilitation of the crossing.

50. Unless otherwise approved by the AO, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be inter-visible, whichever is less. Turnouts will conform to diagrams that can be obtained from the AO.

51. All cattleguard grid identification marks welded into them indicating ownership and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) load rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads, (exceeding H-20 loading) are anticipated. (See BLM standard drawings for cattleguards). Cattleguard grid width shall not be less than eight feet and length of not less than 14 feet. A wire gate with a minimum width of 16 feet will be provided on one side of the cattleguard.

52. Construct this “loop line” within twenty (20) feet of the existing pipeline.

53. If a surface pipeline is constructed adjacent to a road, it shall be no closer than twenty (20) feet from traveled surface of the road

54. All surface pipeline(s) shall be buried at least three (3) feet where it crosses any road or areas associated with a road, i.e., bar-ditches, water turn-outs. The pipeline shall be marked with suitable signs on either side of a road crossing(s).

55. All weather access is desired and surface material (\_\_\_) is economically available, therefore the road shall be surfaced. The surfacing material will be compacted to a minimum thickness of \_\_\_ inches. Prior to using any mineral material from an existing or proposed Federal source, authorization must be obtained from the AO.

56. Surfacing may be applied at the Holder's discretion, but is not required at this time. However, if it becomes evident there is resource damage or it becomes evident the road is receiving excess damage, surfacing will be required.

57. Plastic pipe shall not be used in the construction of a surface pipeline.

58. Compaction of the surfacing material will be done with a sheep's foot compactor. Upgrading and surfacing of the collector road will be done during the spring and summer of \_\_\_\_\_. Work on the remaining local and resource roads to bring them up to BLM standards will be accomplished by the summer of \_\_\_\_\_. All maintenance and upgrading of existing roads will be done within the existing disturbed area.

59. Holder is responsible for notifying the party(s) listed below for sharing in road maintenance.

<u>Right-of-way</u>	<u>Holder</u>	<u>Address</u>	<u>Telephone</u>
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60. The Holder shall:

A. Recontour disturbed areas, or designated sections of the right-of-way, by grading to restore the site to approximately the original contour of the ground as determined by the AO.

B. Recontour the disturbed area and obliterate all earthwork by removing embankments, backfilling excavations, and grading to re-establish the approximate original contours of the land in the right-of-way.

C. Uniformly spread topsoil over all unoccupied disturbed areas (outside the ditch line, fence line, work area). Spreading shall not be done when the ground or topsoil is frozen or wet.

61. Construct earthen berms that are a minimum of four (4) feet high with a ditch that has a one (1)-foot vertical face away from the right-of-way, i.e., towards the direction of potential traffic, cut at the base of the berm. Construct this type berm at each end of the right-of-way where it is separate from the road.

62. The Holder shall furnish and apply water, chemicals, or use other means satisfactory to the AO for dust

63. If snow removal from the road is undertaken, equipment used for snow removal operations shall be equipped with shoes to keep the blade \_\_\_ inches off the road surface. Holder shall take special precautions where the surface of the ground is uneven and at drainage crossings to ensure that equipment blades do not destroy vegetation.

64. The holder shall construct waterbars on all disturbed areas to the spacing and cross sections specified by the AO. Waterbars are to be constructed to: (1) simulate the imaginary contour lines of the slope (ideally with a grade of one or two percent); (2) drain away from the disturbed area; and (3) begin and end in vegetation or rock whenever possible.

Percent Slope	Spacing Intervals
Less than 1%	400 feet
1 - 5%	300 feet
5 -15%	200 feet
12-25%	100 feet

65. The Holder shall mulch disturbed areas designated by the AO. The type of mulch shall meet the following requirements:

A. Straw or hay used for mulching shall be from oats, wheat, rye, or other approved grain crops, or approved herbaceous mowings, respectively, and free from noxious or other objectionable material as determined by the AO. Straw or hay mulch shall be suitable for placing with mulch blower equipment.

B. Wood cellulose fiber shall be natural or cooked wood cellulose fiber, shall disperse readily in water, and shall be nontoxic. The homogeneous slurry or mixture shall be capable of application with power spray equipment. A colored dye that is noninjurious to plant growth may be used when specified. Wood cellulose fiber shall be packaged in new, labeled containers.

C. Hand seeding with hydro-mulch, excelsior netting and/or mulch with netting \_\_ required on \_\_ slopes. Mulch should be grass or straw spread at 2,000 to 3,000 pounds per acre (or one to two inches deep).

66. All above ground structures not subject to safety requirements shall be painted by the Holder to blend with the natural color of the landscape. A reflective material may be used to reduce hazards that may occur when such structures are near roads. Otherwise, the paint use shall be a non-glare, non-reflective, non-chalking color of:

- A. Federal Juniper Green (595a-34127)
- B. Munsell Soil Color Slate Gray (5Y 6/1)
- C. Munsell Soil Color Carlsbad Canyon Brown (2.5Y 6/2).
- D. Munsell Soil Color Desert Brown (10YR 6/3)
- E. The leg-off will not be painted the above color, but instead shall be left unpainted such that the rusty finish on the pipe would blend in with the surroundings.

67. Seed all the disturbed areas (except the driving surface and road shoulders [entire area if road is to be reclaimed] road only) using the following designated seed mixture and to the specifications given. Disturbed areas shall be reseeded within one year of final construction.

68. This grant is for an existing road(s) under the terms of the New Mexico Policy, Standards, and Procedures for Existing Roads issued effective January 1, 1990. This R/W grant shall be deemed to describe the existing road(s) as it exists on the ground as of April 8, 1991, notwithstanding the descriptions contained herein.



69. Upon completion of construction, the Holder shall post as directed by the AO, the Bureau serial number assigned to this right-of-way grant at the following location(s) \_\_\_\_.

70. A. The Holder shall reconstruct rock rims to near as possible to the original.

B. There will be bitterbrush plant seedlings planted on slopes as identified by the AO. These seedlings will be placed with BLM's assistance and direction. It is also advisable to obtain a nursery specialist to assist and advise with this project. These seedlings will be in addition to the normal grass and forb mix that will be seeded into the entire right-of-way.

#### **I. LOCATION AND ACCESS ROAD STANDARDS**

1. Well area and lease premises will be maintained in a workmanlike manner with due regard to safety, conservation and appearance. All liquid waste, completion fluids and drilling products associated with oil and gas operations will be contained and then buried in place, or removed and deposited in an approved disposal site.

2. Surface disturbance and vehicular traffic will be limited to the approved location and approved access road.

3. Mud and blow pits will be constructed so as not to leak, break or allow discharge of liquids or produced solids. At least half of the capacity of the reserve pit must be in cut. The top of the outside wall of reserve pit should be smoothed-off with a minimum of one blade width. The pit should have adequate capacity to maintain 2 feet of free board. Pits are not to be located in natural drainages. Pit walls are to be "walked down" by a crawler type tractor following construction and prior to usage. Any plastic material used to line pits must be removed to below-ground level before pits are covered. The final grade of reserve pit (after reclamation) shall allow for drainage away from pit area.

4. All unguarded pits (reserve/production/blow) containing liquids will be fenced with woven wire. Drilling pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced. All fencing must be a legal fence in accordance with New Mexico State Law. Liquids in pits will be allowed to evaporate, or be properly disposed of, before pits are filled and recontoured. (This office will be notified 24 hours prior to fluid hauling.) Under no circumstances will pits be cut and drained. Aeration of pit fluids must be confined within pit area. Upon completion of the well the reserve pit will be covered with screening or netting and remained covered until the pit is reclaimed. All production pits 16 feet in diameter or larger will be covered with screening or netting.

5. No gravel or other related minerals from new or existing pits on Federal land will be used in construction of roads, well sites, etc., without prior approval from the Surface Managing Agency.

6. Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks, or the combined capacity of tanks if a rupture could drain more than one tank. Berm walls will be compacted with appropriate equipment to assure proper construction.

7. All roads on public land must be maintained in good passable condition.

8. Use of pesticides and herbicides shall comply with applicable federal/state laws. Pesticides and herbicides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, holder shall obtain from the AO written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary. Emergency use of pesticides shall be approved in writing by the AO prior to use.

9. Holder shall be responsible for weed control and selective control of invasive weeds on disturbed and reclaimed areas within the limits of the well pad, associated road and pipeline ROW. Holder is responsible for consultation with the AO and/or local authorities for acceptable weed control methods within limits imposed in the conditions of approval.

## **II. CULTURAL RESOURCES (ARCHAEOLOGY)**

**1. Discovery of Cultural Resources in the Absence of Monitoring:** If, in its operations, operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to BLM Field Manager. BLM will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery and consult with the State Historic Preservation Officer in accordance with 36 CFR Section 800.11. Minor recordation, stabilization, or data recovery may be performed by BLM or a permitted cultural resources consultant. If warranted, more extensive treatment by a permitted cultural resources consultant may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any required treatment is completed. Failure to notify the BLM about a discovery may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).

**2. Discovery of Cultural Resources During Monitoring:** If monitoring confirms the presence of previously unidentified cultural resources, then work in the vicinity of the discovery will be suspended and the monitor will promptly report the discovery to the BLM Field Manager. BLM will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery and consult with the State Historic Preservation Officer in accordance with 36 CFR Section 800.11. Minor recordation, stabilization, or data recovery may be performed by BLM or a permitted cultural resources consultant. If warranted, more extensive treatment by a permitted cultural resources consultant may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any required treatment is completed.

**3. Damage to Sites:** If, in its operations, operator/holder damages, or is found to have damaged any previously documented or undocumented historic or prehistoric cultural resources, excluding "discoveries" as noted above, the operator/holder agrees at his/her expense to have a permitted cultural resources consultant prepare and have executed a BLM approved data recovery plan. Damage to cultural resources may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).

### III. RESEEDING AND ABANDONMENT

#### *[INSERT SEED MIXTURE HERE]*

Species shall be planted in pounds of pure live seed per acre:

Present Pure Live Seed (PLS) = Purity X Germination/100

Two lots of seed can be compared on the basis of PLS as follows:

<u>Source No. One (poor quality)</u>		<u>Source No. two (better quality)</u>	
Purity	50 percent	Purity	80 percent
Germination	40 percent	Germination	63 percent
Percent PLS	20 percent	Percent PLS	50 percent
<i>5 lb. bulk seed required to make 1 lb. PLS.</i>		<i>2 lb. bulk seed required to make 1 lb. PLS.</i>	

The seed mixture used must be ***certified***. There shall be NO primary or secondary noxious weeds in the seed mixture. Seed labels from each bag shall be available for inspection while seed is being sown.

Seeding shall be accomplished between July 1 and September 15 (later date may be extended on a case-by-case basis with AO approval).

Compacted areas shall be ripped to a depth of twelve inches and disked to a depth of six inches before seeding. Seed with a disk-type drill with two boxes for various seed sizes. The drill rows shall be eight to ten inches apart. The seed shall be planted at not less than one-half inch deep or more than one inch deep. The seeder shall be followed with a drag, packer, or roller to ensure uniform coverage of the seed, and adequate compaction. Drilling shall be done on the contour where possible, not up and down the slope.

Where slopes are too steep for contour drilling a "cyclone" hand seeder or similar broadcast seeder shall be used. Seed shall then be covered to the depth described above by whatever means is practical, i.e. hand raked. If the seed is not covered, the prescribed seed mixture amount (pounds/acre/PLS) will be doubled.

Seeding shall be repeated if a satisfactory stand is not obtained as determined by the AO upon evaluation after the second growing season.

If, upon abandonment of wells, the retention of access road is not considered necessary for the management and multiple use of the natural resources, it will be ripped a minimum of 12" in depth. After ripping, water bars will be installed. All ripped surfaces are to be protected from vehicular travel by construction of a dead end ditch and earthen barricade at the entrance to these ripped areas. (Reseeding of affected areas may be required.)

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## United States Department of the Interior

### BUREAU OF LAND MANAGEMENT

Farmington Field Office  
1235 La Plata Highway, Suite A  
Farmington, New Mexico 87401

IN REPLY REFER TO:

3162.3-1(07100)

- x Name of Company
- x Name of Well
- x Lease Number
- x Legal Location
- x Name of County and State

### Above Data Required on Well Sign

### **GENERAL REQUIREMENTS** **FOR** **OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES**

In addition to those requirements set forth in the laws, regulations and Onshore Orders, these requirements apply generally to all oil and gas operations on Federal and Indian leases. They apply specifically to the above described well. Special requirements that apply and are effective for this well, if any, are check-marked in Section VII of these General Requirements. The failure of the operator to comply with these requirements and the filing of required reports will result in strict enforcement of 43 CFR 3163.1 or 3163.2.

#### **I. GENERAL**

- A. Full compliance with all applicable laws, regulations, and Onshore Orders, with the approved Permit to Drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report (Form 3160-4) is filed. The report should be on 8½ x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.
- E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).
- F. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for

variance from the approved drilling program and before commencing plugging operations, plug back work casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a notice of intent (on a Sundry Notice, Form 3160-5) within three business days (original and three copies of Federal leases and an original and four copies on Indian leases). **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at XXX-XXX-XXXX. Emergency program changes after hours should be directed to \_\_\_\_\_ at XXX-XXX-XXXX or \_\_\_\_\_ at XXX-XXX-XXXX.**

- G. The Field Office Manager (Inspection and Enforcement Section, phone number (505-599-8907) is to be notified at least 24 hours in advance of any cementing or plugging operations so that a BLM representative may witness the operations.
- H. Unless drilling operations are commenced within one year, approval of the Application for Permit to Drill well expire. A written request for a six months extension may be granted if submitted prior to expiration.
- I. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the toolpusher shall maintain rig surveillance at all time, unless the well is secured with blowout preventers or cement plugs.
- J. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.

## **II. REPORTING REQUIREMENTS**

- A. For reporting purposes, all leases, communitization agreements or unit agreements are to be referenced by the numbers and prefixes affixed to the respective contract documents by the issuing agency at the time of issue.
- B. The following reports shall be filed with the BLM-Authorized Officer within 30 days after the work is completed.
  - 1. Original and three copies on Federal and Original and four copies on Indian leases of Sundry Notice (Form 3160-5), giving complete information concerning.
    - a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of any and all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.
    - b. Intervals tested, perforated (include; size, number and location of perforations), acidized, or fractured; and results obtained. Show date work was done (a Sundry Notice is not required if a Completion Report is submitted within 30 days of the operation).

- c. Subsequent Report of Abandonment, showing the manner in which the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.
2. Well Completion Report (Form 3160-4) will be submitted within 30 days after well has been completed
  - a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.
3. A cement evaluation log if cement is not circulated to surface.

### **III. DRILLER'S LOG**

- A. The following shall be entered in the daily driller's log: 1) Blowout preventer pressures tests, including test pressures and results. 2) Blowout preventer tests for proper functioning, 3) Blowout prevention drills conducted, 4) Casing run, including size, grade, weight, and depth set, 5) How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc., 6) Waiting on cement time for each casing string, 7) Casing pressure tests after cementing, including test pressure and results and 8) Estimated amounts of oil and gas recovered and/or produced during drillstem test.

### **IV. GAS FLARING**

- A. Gas produced from this well may not be vented or flared beyond an initial, authorized test period of   \*   Days or 50 MMCF following its (completion)(recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted, and you shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

\*30 days, unless a longer test period specifically is approved by the authorized officer. The 30-day period beings when the casing is first perforated for cased holes, and when Total Depth (TD) is reached for open hold completion.

### **V. SAFETY**

- A. All rig heating stoves are to be of the explosion-proof type.
- B. Rig safety lines are to be installed.
- C. Hard hats must be utilized.

### **VI CHANGE OF PLANS OR ABANDONMENT**

- A. Any changes of plans required in order to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.F..

- B. If the well is dry it is to be plugged in accord with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.F.. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section 11.B.1c..
- C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drillsite without prior approval from the BLM-Authorized Officer.

## **VII. SPECIAL STIPLATIONS**

The following special requirements apply and are effective when checked:

- A. A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the Bureau of Land Management, Farmington Field Office, Branch of Reservoir Management, 1235 La Plata Highway, Suite A, Farmington, New Mexico 87401. The effective date of the agreement must be Prior to any sales.
- B. The BLM-Authorized Officer requires testing all components of well control systems at the pressure requirements set forth in Onshore Oil and Gas Order No. 2, Section III. A. 1., plus a 30% safety factor, and does not elect to utilize the discretionary authority for requiring the testing of selected components at the A. P. L. working pressures.
- C. Note Attachments

## **VIII. PHONE NUMBERS**

- A. For cementing and plugging operations the phone number is 505-599-8907 and should be called 24 hours in advance in order that a BLM representative may witness the operations.
- B. Emergency program changes after hours contact:

\_\_\_\_\_ at (XXX) XXX-XXXX

or

\_\_\_\_\_ at (XXX) XXX-XXXX



**Appendix H**  
**Potential R&PP Locations Identified**

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## Potential R&PP Locations Identified

T. 24 N., R. 9 W.  
Sec. 25

T. 25 N., R. 11 W.  
Sec. 18

T. 27 N., R. 11 W.  
Sec. 35

T. 28 N., R. 11 W.  
Sec. 10 & 15

T. 29 N., R. 10 W.  
Sec. 17 & 18

T. 29 N., R. 11 W.  
Sec. 3, 10, 29 & 31

T. 29 N., R. 12 W.  
Sec. 2, 10, 11, 17, 18, 33 & 34

T. 30 N., R. 9 W.  
Sec. 27 & 28

T. 30 N., R. 10 W.  
Sec. 17 & 18

T. 30 N., R. 11 W.  
Sec. 2, 3, 5, 6, 7, 10, 11, 14, 15,  
17, 20, 21, 23, 26, 27 & 28

T. 30 N., R. 12 W.  
Sec. 1, 2, 11, 12 & 20

T. 30 N., R. 13 W.  
Sec. 26, 27 & 34

T. 31 N., R. 8 W.  
Sec. 3, 4, 9 & 10

T. 31 N., R. 11 W.  
Sec. 31, 32, 33 & 34

T. 31 N., R. 12 W.  
Sec. 4, 5, 9, 10 & 34

T. 31 N., R. 14 W.  
Sec. 31

T. 32 N., R. 6 W.  
Sec. 7 & 8

T. 32 N., R. 7 W.  
Sec. 13

T. 32 N., R. 8 W.  
Sec. 33 & 34

T. 32 N., R. 10 W.  
Sec. 21

T. 32 N., R. 13 W.  
Sec. 10, 15 & 22

**Appendix I**  
**OHV Management**

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## Implementing Area Designations and Guidance for Site-Specific Planning

### Introduction

#### Background

The off-highway portion of the Draft EIS for the FFO is a programmatic planning document and is intended to provide the environmental analysis and disclosure needed to amend OHV area designations in the proposed resource management plan.

The Draft EIS addresses the impacts of motorized wheeled OHV travel on areas currently available to cross-country travel. The proposed decision would amend the resource management plan OHV designations on approximately 1.4 million acres of public land within the FFO. This designation limits/restricts motorized wheeled cross-country travel yearlong under BLM regulations (CFR 8342). The proposed action does not change the current limited/restricted yearlong or closed designations, or designated OHV intensive use areas within the existing Special Management Areas. Site specific planning would address OHV use in each OHV Management Unit.

The programmatic Draft EIS is not intended to change existing site-specific direction to close areas or trails to the traffic types causing considerable adverse effects (43 CFR 8341.2). Identifying affected areas or trails may occur through normal administration and monitoring or may be the result of public input.

### Planning Process

**EIS/Plan Amendment:** Planning for BLM lands involves two levels of decision. The first level, often referred to as programmatic planning, is the development or amendment of the resource management plan, which provides management direction for the various resource programs, uses, and protection measures. The resource management plan and associated amendments are intended to set out management prescriptions with goals, objectives, standards, guidelines, and terms and conditions for future decision-making through site-specific planning. This includes the designation of areas as closed, open, or restricted/limited to motorized wheeled cross-country travel.

**Site-Specific Planning:** The second level of planning involves the analysis and implementation of management practices designed to achieve goals and objectives of the resource management plan. This is referred to, as project, activity, or site-specific planning that requires detailed information, including the location, condition, and current use of individual roads, trails, routes, and areas. This allows the identification of when and where individual roads, trails, routes and areas will be open or closed to various types of use. This step is accomplished through the site-specific planning process at the local level, and is dependent on the availability of funds and resources. A prioritized list of areas for site-specific planning would be completed within six months after the signing of the Record of Decision for the Final EIS.

This would be consistent with the land use planning manual and handbook (Manual 1600 and Handbook H-1600-1) and any future OHV planning policy.

### Prioritization for Site Specific Planning

#### Introduction

To ensure that site-specific planning is initiated in areas of the most need, areas would be identified by three categories to provide appropriate emphasis for their completion. Prioritization for site-specific planning would be done by OHV management unit or by SMA and would be rated as high, moderate, or low based on several factors.

#### Prioritization of Areas

The FFO would complete a prioritized list of areas for site-specific planning within six months of the signing of the ROD in close coordination with the public.

**Factors:** When determining the priorities for site-specific planning, the FFO will consider the effects of the Final EIS; Executive Orders 11644 and 11989; the National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands; coordination with the public; other partners, agencies, and tribal governments; and the factors listed below:

- Opportunity to provide a variety of OHV recreational experiences, while minimizing resource damage and conflicts.
- Risk of, or current damage to, soil watersheds, vegetation, or other natural, cultural or historic resources on public land.
- Potential to spread noxious weeds.
- Avoidance of riparian/wetland areas.
- Need to minimize harassment of wildlife or significant degradation of wildlife habitats.
- Concern for safety of all users.
- Resolution of conflicts between various user groups.
- Current or potential impacts to federally listed threatened or endangered, and sensitive species.
- Amount of public land within the disposal zone.

**Categories:** OHV management units and applicable SMAs will be included in one of the following categories:

**HIGH PRIORITY AREAS** – Areas that currently have a high level of OHV use, which has resulted in resource damage and/or user conflicts. There is the need to address all or most of the factors listed above. Site-specific planning would be initiated within two years of the resolution of any protests to the Final EIS or administrative appeals to the ROD.

**MODERATE PRIORITY AREA** – These areas may address some of the factors listed above, as well as identifying areas that provide OHV opportunities, and at the same time minimize user conflicts and resource damage. Site-specific planning would be started within five years (same guidelines as above).

**LOW PRIORITY AREAS** – Areas where the majority of the public land is in the disposal zone and/or there is low OHV use due to remoteness and distance from the major population centers. Any resource problems can be solved with emergency closures until they are resolved. There are no specific requirements for initiation of site-specific planning.

### **Road/Trail/Route/Area Inventory**

Through site-specific planning, roads, routes, trails, and areas would be inventoried, mapped and designated as open, limited by season or type of vehicle, or closed.

Site-specific planning would identify appropriate locations and types of allowable use based on resource management plan desired conditions and management conditions. In addition, site-specific planning may identify areas for trail construction and/or improvement, or specific areas where intensive OHV use may be appropriate. Integration of other resource objectives and other types of recreational use would be incorporated at this time.

### **User Needs**

Site-specific planning would identify issues needing resolution at the site-specific level. The following procedure would be followed:

1. Define the scope of the analysis. The boundaries of the area to be analyzed would be the prioritized OHV Management Unit and/or the Special Management Area.
2. Identify and describe vehicle travel needs for individual roads, routes, trails and areas. Consider the reasons for needing access to the area, what travel mode is needed or desired, and why people choose to participate in a specific activity in a particular place. Is access needed for:
  - Meeting recreation opportunities and demand?
  - Commodity production?
  - Water production?
  - Special use permits?
  - Rights-of-way, legal access, easements, cost-share or prescriptive rights?
  - Private in holdings?
  - Hazardous waste remediation or watershed restoration?
  - Fire protection or law enforcement?
  - Barrier-free recreation opportunities or special access accommodations as needed by individuals?
  - Other access needs?
3. Identify and describe needs and/or reasons to limit travel in the OHV Management Unit. Consider the potential effects of different uses on:
  - Wildlife habitat
  - Grazing allotments
  - Soils
  - Water quality
  - Riparian areas
  - Threatened and endangered species habitat
  - Cultural resources
  - Native vegetation
  - Conflicting uses
  - Public safety
  - Special management areas
  - Lessees and permittees
  - Other access restriction needs

### **Development of Alternatives**

Alternatives should reflect a range of distribution strategies for agency and public land users. The distribution strategies must balance requirements for restrictions with the needs for vehicle travel. They must also address the objectives for the area. Planning prescriptions should be developed for roads, routes, trails, and areas within the analysis area.

### **Decision**

Completion of site-specific planning for an area will establish a permanent management plan for that particular area through the designation of roads, routes, trails, and areas open, limited, or closed for a particular use.

**Appendix J**  
**Air Quality Data**

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## Air Quality Data

**Table J-1. Reduction of Annual Production and Emissions for the BLM Farmington/  
Rio Puerco RMPs—P&A Wells**

Project Year	New Wells P&Aed <sup>1</sup>	Cumulative Wells P&Aed <sup>1</sup>	Annual Production Loss (Bscf) <sup>2</sup>	Tons per Year			
				VOC	CO	NOx	PM <sub>10</sub>
1	133	133	3.7	8	341	345	0
2	140	273	7.6	17	699	707	0
3	147	418	11.7	26	1,075	1,087	0
4	154	572	16.1	36	1,470	1,487	1
5	162	735	20.6	46	1,884	1,906	1
6	170	905	25.3	56	2,319	2,346	1
7	178	1,083	30.3	67	2,776	2,808	1
8	187	1,269	35.6	79	3,256	3,294	1
9	197	1,467	41.1	91	3,759	3,803	2
10	206	1,673	46.8	104	4,288	4,338	2
11	217	1,890	52.9	118	4,844	4,900	2
12	227	2,117	59.3	132	5,427	5,490	2
13	239	2,356	66.0	147	6,039	6,109	3
14	251	2,607	73.0	162	6,682	6,760	3
15	263	2,870	80.4	179	7,357	7,443	3
16	276	3,146	88.1	196	8,066	8,160	4
17	290	3,437	96.2	214	8,810	8,913	4
18	305	3,742	104.8	233	9,592	9,703	4
19	320	4,062	113.7	253	10,412	10,533	5
20	336	4,398	123.1	274	11,274	11,405	5
<b>Totals</b>	<b>4,398</b>	<b>39,153</b>	<b>1,096</b>				

Notes: (1) Assumes an annual growth rate of 5 percent.

(2) Annual production loss = wells in production per year \* annual well production. Annual well production = total production for the Alternative/total well-years, or 11,158 Bscf/139,556 well-years = 0.07995 Bscf/well-year.



**Table J-2. Operational Data for Emission Sources Associated with P&A Wells—  
BLM Farmington/Rio Puerco RMPs**

Scenario/Equipment Type	Horsepower (HP)	Load Factor	Hourly Hp-Hr	Annual Hp-Hr	Hourly Fuel Use (scf)	Annual Fuel Use (Mscf)
<b>Average Producing Well</b>						
Wellhead Compressor – Cat G3304 <sup>1</sup>	95	0.21	20	177,259	171	1.50
Separator Unit <sup>2</sup>	250,000	0.13	31,250	NA	35	0.30
<b>Annual Central Compression Needs</b>						
Central Compressor – Cat 3612 <sup>3</sup>	0.68	0.90	1	5,361	5	0

- Notes: (1) Wellhead compressors expected at 25% of the proposed wells and would operate at 100% load and 85% of the year. Therefore, the annualized load factor per well is 21.3%. Gas heating values = 905 BTUs.  
 (2) Separator units assumed at 25% of P&A wells and would operate at 100% load and 50% of the year. Therefore, the annualized load factor/well is 12.5%. Horsepower = unit firing rate of 250,00 BTU/Hr, and Hourly Hp-Hr = hourly firing rate of 62,500 BTUs/Hr.  
 (3) Represents central compression associated with one P&A well-year.

**Table J-3. First Year Annual Emissions Associated with P&A Wells—  
BLM Farmington/Rio Puerco RMPs**

Equipment Type	Tons per Year			
	VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>
Wellhead Compressors	7.8	339.1	341.7	0.0
Separator Units	0.1	0.8	1.9	0.2
Central Compression	0.4	1.0	1.3	0.0
<b>P&amp;A Wells—Tons per Year</b>	<b>8.3</b>	<b>340.9</b>	<b>344.9</b>	<b>0.2</b>

**Table J-4. Year 20 Annual Emissions Associated with P&A Wells—  
BLM Farmington/Rio Puerco RMPs**

Equipment Type	Tons per Year			
	VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>
Wellhead Compressors	257.8	11,213.7	11,299.6	0.1
Separator Units	3.7	26.6	62.5	5.1
Central Compression	12.2	33.5	42.6	0.0
<b>P&amp;A Wells - Tons per Year</b>	<b>273.7</b>	<b>11,273.8</b>	<b>11,404.7</b>	<b>5.1</b>



## GLOSSARY

**Abandonment**—Termination of fluid minerals operations, production operations, removal of facilities, plugging of the well bore, and reclamation of surface disturbances.

**Affected Environment**—Surface or subsurface resources (including social and economic elements) within or adjacent to a geographic area that potentially could be affected by gas development and production activities. The environment of the area to be affected or created by the alternatives under consideration (40 CFR 1502.15).

**A-weighted**—A weighting function applied to the noise spectrum, which approximates the response of the human ear.

**Allotment (range)**—A designated area of land available for livestock grazing upon which a specified number and kind of livestock may be grazed under management of an authorized agency.

**Alternative**—A combination of management prescriptions applied in specific amounts and locations to achieve a desired management emphasis as expressed in goals and objectives. One of a number of plans or projects proposed for decision-making.

**Ambient (air)**—The surrounding atmospheric conditions to which the general public has access.

**Animal Unit Months (AUM)**—Amount of forage required to sustain a cow/calf unit (one cow and one calf) for one month.

**Application for Permit to Drill (APD)**—A written request, petition, or offer to lease lands for the purpose of fluid minerals exploration and/or right-of-extraction.

**Aquifer**—A water-bearing layer of permeable rock, sand or gravel. A formation, group of formations, or part of a formation that contains sufficient saturated permeable material to conduct groundwater and yield large quantities of water to wells and springs.

**Area of Critical Environmental Concern (ACEC)**—A BLM designation pertaining to areas where specific management attention is needed to protect and prevent irreparable damage to important historical, cultural, and scenic values, fish or wildlife resources, or other natural systems or processes, or to protect human life and safety from natural hazards.

**Arroyo**—A term applied in the arid and semiarid regions of the southwestern United States to the small, deep, flat-floored channel or gully of an ephemeral stream or of an intermittent stream usually with vertical or steeply cut banks of unconsolidated material at least 2 feet (60 centimeters) high; it is usually dry, but may be transformed into a temporary watercourse or short-lived torrent after heavy rainfall.

**Aspect**—The direction in which a slope faces.

**Basin**—See **San Juan Basin**.

**Bentonite**—A naturally occurring clay used to keep the cuttings in suspension as they move up the borehole.

**Best Management Practices (BMPs)**—Measures that are installed on the land to reduce erosion and sedimentation before starting and during ground-disturbing activities.

**Big Game**—Large species of wildlife that are hunted, such as elk, deer, bighorn sheep, and pronghorn antelope.

**Biodiversity**—The diversity of living organisms considered at all levels of organization including genetics, species, and higher taxonomic levels, and the variety of habitats and ecosystems, as well as the processes occurring therein.

**Cambrian**—The oldest of the periods of the Paleozoic Era; also the system of strata deposited during that period.

**Carbonaceous**—Coaly; pertaining to, or composed largely of, carbon.

**Casing**—Steel pipes of varying diameter and weight, joined together by threads and couplings, "inserted" into the well bore for the purpose of supporting the walls of the well and preventing them from caving in. Surface casing is inserted from the ground surface to approximately 250 feet (76 metres), production casing is inserted to the total depth of the well (smaller diameter pipe than surface casing), cemented in place and latter perforated for production.

**Clean Air Act**—Federal legislation governing air pollution. The Clean Air Act established National Ambient Air Quality Standards for carbon monoxide, nitrogen dioxide, ozone, particulate matter, sulfur dioxide, and lead.

**Coal**—A readily combustible rock containing more than 50 percent weight and more than 70 percent by volume of carbonaceous material including inherent moisture, formed from compaction and induration of variously altered plant remains similar to those in peat. Differences in the kinds of plant materials (type), in degree of metamorphism (rank), and in the range of impurity (grade) are characteristic of coal and are used in classification.

**Coalbed Methane**—A gas associated with a coal seam.

**Completion**—The activities and methods to prepare a well for production. Includes installation of equipment for production from an oil or gas well.

**Compressor (large)**—Range from 500 to 10,000 horsepower, located on oil and gas distribution pipelines.

**Compressor (small)** —About 100 horsepower, generally located at the wellhead.

**Compressor Station**—Any location along an oil and gas trunk line with one or more large compressors.

**Conditions of Approval (COA)**—Conditions or provisions (requirements) under which an Application for a Permit to Drill or a Sundry Notice is approved.

**Controlled Surface Use (CSU)**—A fluid minerals leasing constraint under which use and occupancy is allowed (unless restricted by another stipulation), but identified resource values require special operational limitations that may modify lease rights.

**Corridor**—For purposes of this environmental assessment, a wide strip of land within which a proposed linear facility could be located.

**Council on Environmental Quality (CEQ)**—An advisory council to the President of the United States established by the national Environmental Policy Act of 1969. It reviews federal programs for their effect on the environment, conducts environmental studies, and advises the president on environmental matters.

**Critical Habitat**—An area occupied by a threatened or endangered species “on which are found those physical and biological features (1) essential to the conservation of the species, and (2) which may require special management considerations or protection” (16 USC 1532 [5][A][I]1988). Unoccupied by suitable habitat for the threatened or endangered species is not automatically included unless such areas are essential for the conservation of the species (50 CFR 424.12(e)).

**Cultural Resources**—Remains of human activity, occupation, or endeavor, as reflected in districts, sites, buildings, objects, artifacts, ruins, works of art, architecture, and natural features important in human events.

**Cumulative Impact**—The impact on the environment that results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

**Dewatering**—The act of removing water.

**Directional Drilling**—The intentional deviation of a wellbore from vertical to reach subsurface areas off to one side from the drilling site.

**Discretionary Closure**—Those lands where the BLM has determined that fluid minerals leasing, even with the most restrictive stipulations, would not adequately protect other resources, values, or land uses.

**Disposal Well**—A well into which produced water from other wells is injected into an underground formation for disposal.

**Diversity**—The relative abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area.

**Drilling Fluids**—The circulating fluid used to bring cuttings out of the wellbore, cool the drill bit, provide hole stability, and pressure control.

**Drilling Rig**—The derrick, draw-works, and attendant surface equipment of a drilling or workover unit.

**Drilling**—The operation of boring a hole in the earth, usually for the purpose of finding and removing subsurface formation fluids such as oil and gas.

**Dry Hole**—Any well incapable of producing oil or gas in commercial quantities. A dry hole may produce water, gas, or even oil, but not enough to justify production.

**Easement**—A right afforded a person or agency to make limited use of another's real property for access or other purposes.

**Emission**—Effluent discharge into the atmosphere, usually specified by mass per unit time.

**Endangered Species**—Any animal or plant species in danger of extinction throughout all or a significant portion of its range.

**Environmental Impact Statement (EIS)**—A document prepared to analyze the impacts on the environment of a proposed action and released to the public for review and comment. An EIS must meet the requirements of NEPA, CEQ, and the directives of the agency responsible for the proposed action.

**Erosion**—The group of processes whereby earthy or rocky material is worn away by natural sources such as wind, water, or ice and removed from any part of the earth's surface.

**Ephemeral Stream**—A stream that flows only in direct response to precipitation.

**Exploration Well**—A well drilled in the area where there is no oil or gas production (also known as wildcat well).

**Federal Candidate Species**—Sensitive wildlife species currently under consideration for inclusion to the list of federal threatened or endangered species.

**Federal Listed Species**—Animal or plant species listed by the USFWS as threatened or endangered.

**Floodplain**—The flat ground along a stream that is covered by water when the stream overflows its banks at flood stages.

**Fluid Minerals**—In this case, oil, gas, and geothermal resources.

**Forage**—All browse and herbaceous foods available to grazing animals, which may be grazed or harvested for feeding.

**Foreground View**—The landscape area visible to an observer within a mile.

**Formation**—A body of rock identified by lithic characteristics and stratigraphic position; it is prevailing, but not necessarily tabular, and is mappable at the earth's surface or traceable in the subsurface (NACSN, 2984, Art. 24).

**Fossil**—Any remains, trace, or imprint of a plant or animal that has been preserved by natural processes in the earth's crust since some past geologic time.

**Fractured**—Fissured, broken, or cracked. See also Hydraulic Fracturing.

**Fragmentation**—See Habitat Fragmentation.

**Fugitive Dust**—Airborne particles emitted from any source other than through a stack or vent.

**Habitat**—A specific set of physical conditions that surround a single species, a group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.

**Habitat Fragmentation**—The disruption (by division) of extensive habitats into smaller habitat patches. The effects of habitat fragmentation include loss of habitat area and the creation of smaller, more isolated patches of remaining habitat.

**Habitat Management Plan (HMP)**—A written and officially approved plan for a specific geographical area of public land that identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives, and outlines procedures for evaluating accomplishments.

**Habitat Type**—An aggregation of all land areas potentially capable of producing similar plant communities at climax.

**High Development Area**—An area of approximately 7,000 square miles located in northwest New Mexico with a high level of oil and gas production, as delineated by the New Mexico Institute of Mining and Technology in the RFDS study for the San Juan Basin.

**Historic**—Archaeological and archivally known sites related to the activities of non-native peoples, whether they are of Euro-American, Afro-American or Asian-American origin, in the period after the European discovery of the New World (ca. A.D. 1492).

**Hummocky**—Like a hummock, full of hummocks (a low, rounded hill, knoll, hillock; a tract of wooded land higher than a nearby swamp or marsh).

**Hydraulic Fracturing**—A method of stimulating production by increasing the permeability of the producing formation.

**Hydrocarbons**—Organic compounds of hydrogen and carbon, whose densities, boiling points, and freezing points increase as their molecular weights increase. Although composed mostly of carbon and hydrogen, hydrocarbons exist in a great variety of compounds, owing to the strong affinity of the carbon atom for other atoms and itself. The smallest molecules are gaseous; the largest are solids. Petroleum is a mixture of many different hydrocarbons.

**Impact**—A modification of the existing environment caused by an action (such as construction or operation of facilities).

**Increments**—Maximum allowable increases over legally established baseline concentrations of pollutants covered by the Prevention of Significant Deterioration (PSD) provisions designated as Class I, II, and III areas.

**Indirect Impacts**—Secondary effects that occur in locations other than the initial action or later in time.

**Infrastructure**—The facilities, services, and equipment needed for a community to function including roads, sewers, water lines, police and fire protection, and schools.

**Injection**—The forcing, under abnormal pressure, of material (downward from above, upward from below, or laterally) into a pre-existing deposit or rock, either along some plane or weakness or into a pre-existing crack or fissure.

**Injection Well**—A well used to inject fluids into an underground formation to increase reservoir pressure.

**Insignificant or Nonsignificant Impacts**—Impacts that are perceptible or measurable relative to those occurring naturally or due to other actions, and would not exceed significance criteria.

**Intermittent Stream**—A stream or reach of a stream that is below the local water table for at least some part of the year.

**Jurisdiction**—The legal right to control or regulate use of land or a facility. Jurisdiction requires authority, but not necessarily ownership.

**Landscape**—An area composed of interacting ecosystems that are repeated because of geology, landform, soils, climate, biota, and human influences throughout the area. Landscapes are generally of a size, shape, and pattern that are determined by interacting ecosystems.

**Landscape Character**—Particular attributes, qualities, and traits of a landscape that give it an image and make it identifiable or unique.

**Leasable Minerals**—Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, sulphur, potassium, and sodium minerals, and oil, gas, and geothermal.

**Lease**—(1) A legal document that conveys to an operator the right to drill for oil and gas; (2) the tract of land, on which a lease has been obtained, where producing wells and production equipment are located.

**Lease Notice**—Provides more detailed information concerning limitations that already exist in law, lease terms, regulations, and operational orders. A Lease Notice also addresses special items the lessee would consider when planning operations, but does not impose new or additional restrictions.

**Lease Stipulation**—A modification of the terms and conditions on a standard lease form at the time of the lease sale.

**Lithic Scatter**—A scatter of chipped stone materials, which may include fragments, flakes, or stone tools.

**Management Situation Analysis**—Assessment of the current management direction. It includes a consolidation of existing data needed to analyze and resolve identified issues, a description of current BLM management guidance, and a discussion of existing problems and opportunities for solving them.



**Middleground View**—One of the distance zones of a landscape being viewed. This zone extends from the limit of the foreground to three to five miles from the observer.

**Migration (oil and gas)**—the movement of liquid and gaseous hydrocarbons from their source or generating beds, through permeable formations into reservoir rocks.

**Mineral Estate (Mineral Rights)** – The ownership of minerals, including rights necessary for access, exploration, development, mining, ore dressing, and transportation operations.

**Mineral Reserves**—Known mineral deposits that are recoverable under present conditions but are as yet undeveloped.

**Mineral Rights**—Mineral rights outstanding are third-party rights, an interest in minerals not owned by the person or party conveying the land to the United States. It is an exception in a deed that is the result of prior conveyance separating title of certain minerals from the surface estate.

Reserved mineral rights are the retention of ownership of all or part of the mineral rights by a person or party conveying land to the United States. Conditions for the exercising of these rights have been defined in the Secretary of the Interior's "Rules and Regulations to Govern Exercising of Mineral Rights Reserved Conveyance to the United States" attached to and made a part of deeds reserving mineral rights.

**Mitigation**—The abatement or reduction of an impact on the environment by (1) avoiding a certain action or parts of an action, (2) employing certain construction measures to limit the degree of impact, (3) restoring an area to preconstruction conditions, (4) preserving or maintaining an area throughout the life of a project, or (5) replacing or providing substitute resources to the environment or (6) gathering archaeological and paleontological data before disturbance.

**Modification**—A fundamental change in the provisions of a lease stipulation, either temporarily or for the term of the lease. A modification may, therefore, include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which restrictive stipulation applies.

**Multiple Use**—Multiple use as defined by the Multiple Use—Sustained Yield Act 1960 means the management of all the various renewable surface resources so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

**National Ambient Air Quality Standards (NAAQS)**—The allowable concentrations of air pollutants in the air specified by the federal government. The air quality standards are divided into primary standards (based on the air quality criteria and allowing an adequate margin of safety and requisite to protect the public health) and secondary standards (based on the air quality criteria and

allowing an adequate margin of safety and requisite to protect the public welfare) from any unknown or expected adverse effects of air pollutants.

**National Environmental Policy Act of 1969 (NEPA)**—An Act that encourages productive and enjoyable harmony between man and his environment and promotes efforts to prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; enriches the understanding or the ecological systems and natural resources important to the Nation, and establishes the Council on Environmental Quality.

**National Register of Historic Places (National Register, NRHP)**—A listing of architectural, historical, archaeological, and cultural sites of local, state, or national significance. The list of sites was established by the Historic Preservation Act of 1966 and is maintained by the National Park Service.

**Negligible Impact**—Impact that is small in magnitude and importance and are difficult or impossible to quantify relative to those occurring naturally or due to other actions.

**Nondiscretionary Closure**—Those lands that must be closed to leasing for reasons beyond the discretion of the BLM. These are lands specially precluded from fluid minerals leasing by law, regulations, Secretarial or Executive Order, or that otherwise have been closed formally by decisions reached beyond the scope of the BLM.

**No Surface Disturbance**—In general, this applies to an area where an activity is allowed so long as it does not disturb the surface.

**No Surface Occupancy (NSO)**—A fluid minerals leasing constraint that prohibits occupancy or disturbance on all or part of the lease surface to protect special values or uses. Lessees may exploit the fluid mineral resources under the leases restricted by this constraint through use of directional drilling from sites outside the NSO area.

**Notice to Lessees (NTL)**—A written notice issued by the BLM to implement regulations and operating orders, and serve as instructions on a specific item(s) of importance within a state, district, or area.

**Noxious Weed**—An undesirable weed species that can crowd out more desirable species.

**Off-Highway Vehicle (OHV)**—A vehicle (including four-wheel drive, trail bikes, all-terrain vehicles, and snowmobiles but excluding helicopters, fixed-wing aircraft, and boats) capable of traveling off road over land, water, ice, snow, sand, marshes, and other terrain.

#### **Off-Highway Vehicle (OHV) Designations**

- **Closed**—Applies to areas and trails where the use of OHVs is permanently or temporarily prohibited. Emergency use of vehicles is allowed.
- **Limited**—Applies to areas and trails where the use of OHVs is subject to restrictions such as limiting the number or types of vehicles allowed, dates and times of use (seasonal restrictions), limiting use to existing roads and trails, or limiting use to designated roads or trails. Under the designated roads and trails designation, use is allowed only on roads and

trails that are signed or designated for use. Combinations of restrictions, such as limiting use to certain types of vehicles during certain times of the year, are possible.

- **Open**—Applies to areas and trails where OHVs may be operated subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343.

**Operator**—Any person who has taken formal responsibility for the operations conducted on the leased lands.

**Paleontology**—A science dealing with the life of past geological periods as known from fossil remains.

**Particulate Matter**—Particulate matter is regulated under the Clean Air Act. PM<sub>10</sub> is particulate matter that is 10 microns or less than in effective diameter (also called Fine Particulate Matter). PM<sub>2.5</sub> is particulate matter that is 2.5 microns or less in effective diameter.

**Patent**—A grant made to an individual or group conveying fee simple title to public lands.

**Perennial Stream**—A stream receiving water from both surfaces and underground sources that flows throughout the entire year.

**pH**—A numeric value that gives the relative acidity or alkalinity of a substance on a 0 to 14 scale with the neutral point at 7. Values lower than 7 show the presence of acids, and values greater than 7 show the presence of alkalis.

**Planning Area**—Located in northwest New Mexico, encompasses an area of about eight million acres, including all of San Juan County, most of McKinley County, western Rio Arriba County, and northwestern Sandoval County.

**Plan of Development**—A mandatory plan, developed by an applicant of a mining operation or construction project, that specifies the techniques and measures to be used during construction and operation of all project facilities on public land. The plan is submitted for approval to the appropriate federal agency before any construction begins.

**Plug**—Any object or device that serves to block a hole or passageway, as a cement plug in a borehole.

**Prehistoric**—Archaeological sites resulting from the activities of aboriginal peoples native to this region, and because dating is often difficult, extending up to the reservation era (ca. A.D. 1868).

**Prevention of Significant Deterioration (PSD)**—A regulatory program based not on the absolute levels of pollution allowable in the atmosphere but on the amount by which a legally defined baseline condition will be allowed to deteriorate in a given area. Under this program, geographic areas are divided into three classes, each allowing different increases in nitrogen dioxide, particulate matter, and sulfur dioxide concentrations. Prevention of Significant Deterioration above legally established levels include the following:

- **Class I**—minimal additional deterioration in air quality (certain national parks and wilderness areas).
- **Class II**—moderate additional deterioration in air quality (most lands).

- Class III—greater deterioration for planned maximum growth (industrial areas).

**Prime Farmland**—Land that is best suited for producing food, feed, forage, fiber, and oilseed crops. The inventory of prime agricultural land is maintained by the USDA Natural Resources Conservation Service (formerly the Soil Conservation Service).

**Production Well**—A well drilled in a known field that produces oil or gas.

**Proposed Action**—Construction activities, alignments, and other activities proposed by the applicant.

**Quaternary**—The younger of the two geologic periods or systems in the Cenozoic Era.

**Rangeland**—Land used for grazing by livestock and big game animals on which vegetation is dominated by grasses, grass-like plants, forbs, or shrubs.

**Raptor**—Bird of prey with sharp talons and strongly curved beak; e.g., hawk, owl, vulture, eagle.

**Rare or Sensitive Species**—Species that have no specific legal protection under the Endangered Species Act as threatened or endangered species, but are of special concern to agencies and the professional biologic community due to low populations, limited distributions, ongoing population decline, and/or human or natural threats to their continued existence.

**Reasonable Foreseeable Development Scenario (RFDS)**—The prediction of the type and amount of oil and gas activity that would occur in a given area. The prediction is based on geologic factors, past history of drilling, projected demand for oil and gas, and industry interest.

**Reclamation**—The process of converting disturbed land to its former use or other productive uses.

**Recreation and Public Purposes (R&PP) Act**—This act authorizes the Secretary of the Interior to lease or convey public lands for recreational and public purposes (R&PP), under specified conditions, to states or their political subdivisions and to nonprofit corporations and associations.

**Resource Management Plan (RMP)**—A land use plan that establishes land use allocations, multiple-use guidelines, and management objectives for a given planning area. The RMP planning system has been used by the BLM since 1980.

**Record of Decision**—A document separate from, but associated with, an environmental impact statement that publicly and officially discloses the responsible official's decision on the proposed action.

**Reserve Pit**—(1) Usually an excavated pit that may be lined with plastic that holds drill cuttings and waste mud. (2) Term for the pit that holds the drilling mud.

**Reservoir (oil and gas)**—A naturally occurring, underground container of oil and gas, usually formed by deformation of strata and changes in porosity.

**Riparian**—Situated on or pertaining to the bank of a river, stream, or other body of water. Normally used to refer to the plants of all types that grow along, around, or in wet areas.

**Riverine**—A system of wetlands that includes all wetland and deep-water habitats contained within a channel that lacks trees, shrubs, persistent emergents, and emergent mosses or lichens.

**Roads**—Vehicle routes that are improved and maintained by mechanical means to ensure relatively regular and continuous use. (A way maintained strictly by the passage of vehicles does not constitute a road.)

**Rotation**—A technique performed while cementing, whereby casing is rotated in the hole in order to move the cement slurry uniformly around the casing to eliminate channeling and provide an effective cement bond on the casing and formation walls.

**Salinity**—A measure of the amount of dissolved salts in water.

**San Juan Basin**—A large geologic basin located in northwestern New Mexico and southwestern Colorado that has been extensively drilled for oil and gas and is reportedly the second largest gas-producing basin in the continental United States.

**Scoping**—A term used to identify the process for determining the scope of issues related to a proposed action and for identifying significant issues to be addressed in an EIS.

**Sediment**—Soil or mineral transported by moving water, wind, gravity, or glaciers, and deposited in streams or other bodies of water, or on land.

**Sediment Yield**—The amount of sediment produced in a watershed, expressed in tons, acre feet, or cubic yards, of sediment per unit of drainage area per year.

**Sedimentary Rock**—Rock resulting from consolidation of loose sediment that has accumulated in layers.

**Sensitive Plant Species**—Those plant or animal species susceptible or vulnerable to activity impacts or habitat alterations.

**Significant**—An effect that is analyzed in the context of the proposed action to determine the degree or magnitude of importance of the effect, either beneficial or adverse. The degree of significance can be related to other actions with individually insignificant but cumulatively significant impacts.

**Significance Criteria**—Criteria identified for specific resources used to determine whether or not impacts would be significant.

**Slope**—The degree of deviation of a surface from the horizontal.

**Soil Horizon**—A distinct layer of soil, approximately parallel to the land surface, and different from adjacent, genetically related layers in physical, chemical, and biological properties or characteristics.

**Soil Productivity**—The capacity of a soil to produce a plant or sequence of plants under a system of management.

**Soil Series**—A group of soils having genetic horizons (layers) that, except for texture of the surface layer, have similar characteristics and arrangement in profile.

**Soil Texture**—The relative proportions of sand, silt, and clay particles in a mass of soil. Basic textural classes, in order of increasing proportions of fine particles, are: sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, and clay.

**Split Estate**—Refers to land where the mineral rights and the surface rights are owned by different parties. Owners of the mineral rights generally have a superior right.

**Standard Lease Terms and Conditions (STC)**—Areas may be open to leasing with no specific management decisions defined in a Resource Management Plan; however, these areas are subject to lease terms and conditions as defined on the lease form (Form 3100-11, Offer to Lease and Lease for Oil and Gas; and Form 3200-24, Offer to Lease and Lease for Geothermal Resources).

**Stipulations**—Requirements that are part of the terms of a mineral lease. Some stipulations are standard on all federal leases. Other stipulations may be applied to the lease at the discretion of the surface management agency to protect valuable surface resources and uses.

**Stratigraphy**—The arrangement of strata, especially as to geographic position and chronological order of sequence.

**Suitability**—As used in the Wilderness Act and the Federal Land Policy and Management Act, refers to a recommendation by the Secretary of the Interior or the Secretary of Agriculture that certain federal lands satisfy the definition of wilderness in the Wilderness Act. These lands have been found appropriate for designation as wilderness on the basis of an analysis of their existing and potential uses.

**Sundry Notice**—Standard form to notify of or propose change of approved well operations subsequent to an Application for Permit to Drill in accordance with 43 CFR 3162.3-2.

**Syncline**—A fold of stratified rock inclining upward in opposite directions from both sides of its axis (opposed to anticline).

**Tertiary**—The older of the two geologic periods comprising the Cenozoic Era; also the system of strata deposited during that period.

**Threatened or Endangered Species**—Animal or plant species that are listed under the federal Endangered Species Act of 1973, as amended (federally listed), or under the Colorado or New Mexico Endangered Species Act (state listed).

**Threatened Species**—Any plant or animal species likely to become endangered within the foreseeable future throughout all or part of its range.

**Timing Limitation (TL) (Seasonal Restriction)**—A fluid minerals leasing constraint that prohibits surface use during specified time periods to protect identified resource values. The constraint does not apply to the operation and maintenance of production facilities unless analysis demonstrates that such constraints are needed and that less stringent, project-specific constraints would be insufficient.

**Total Suspended Particulates (TSP)**—All particulate matter less than 70 microns in effective diameter.

**Valid Existing Rights**—Legal interests that attach a land or mineral estate and cannot be divested from the estate until those interests expire or are relinquished.

**Vandalism**—Willful or malicious destruction or defacement of public property (e.g., cultural or paleontological resources).

**Vegetation Manipulation**—Planned alteration of vegetation communities through use of prescribed fire, plowing, herbicide spraying, or other means to gain desired changes in forage availability or wildlife cover.

**Vegetation Type**—A plant community with distinguishable characteristics described by the dominant vegetation present.

**Viewshed**—Total visible area from a single observation point, or total visible area from multiple observation points. Viewsheds are accumulated seen-areas from viewer locations. Examples are corridors, feature, or basin viewsheds.

**Visual Resources**—the visible physical features of a landscape (topography, water, vegetation, animals, structures, and other features) that constitute the scenery of an area.

**Visual Resource Management (VRM)**—The inventory and planning actions taken to identify visual resource values and to establish objectives for managing those values. Also, management actions taken to achieve the established objectives.

**Visual Resource Management Classes**—VRM classes identify the Visual Quality Objectives (VQOs) as the degree of acceptable visual change within a particular landscape. A classification is assigned to public lands based on guidelines established for scenic quality, visual sensitivity, and visibility.

- VRM Class I—This classification preserves the existing characteristic landscape and allows for natural ecological changes only. Includes Congressionally authorized areas (wilderness) and areas approved through an RMP where landscape modification activities should be restricted.
- VRM Class II—This classification retains the existing characteristic landscape. The level of change in any of the basic landscape elements (form, line, color, texture) due to management activities should be low and not evident.
- VRM Class III—This classification partially retains the existing characteristic landscape. The level of change in any of the basic landscape elements due to management activities may be moderate and evident.
- VRM Class IV—This classification applies to areas where the characteristic landscape has been so disturbed that rehabilitation is needed. Generally considered an interim short-term classification until rehabilitation or enhancement is completed.

**Visual Sensitivity**—Visual sensitivity levels are a measure of public concern for scenic quality and existing or proposed visual change.

**Waiver**—Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

**Wellbore**—The hole made by the drilling bit.

**Wellhead**—The equipment used to maintain surface control of a well. It is formed of the casing head, tubing head, and 'Christmas tree'. Also refers to various parameters as they exist at the wellhead, such as wellhead pressure, wellhead price of oil, etc.

**Wetland**—Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

**Wilderness, Wilderness Area (WA)**—An area formally designated by Congress as a part of the National Wilderness Preservation System. Qualities identified by Congress in the Wilderness Act of 1964, include: size; naturalness; outstanding opportunities for solitude or a primitive and unconfined type of recreation; and supplemental values such as geological, archaeological, historical, ecological, scenic, or other features.

**Wilderness Study Area (WSA)**—An area determined to have wilderness characteristics as described in section 603 of the Federal Land Policy and Management Act and Section 2C of the Wilderness Act of 1964 (78 Stat. 891). WSAs are subject to interdisciplinary analysis through the BLM's land use planning system and public comment to determine their wilderness suitability. Suitable areas are recommended to the President and Congress for designation as wilderness.

**Withdrawal**—An action that restricts the use of public land and segregates it from the operation of some or all of the public land and mineral law. Withdrawals also are used to transfer jurisdiction of management of public lands to other federal agencies.



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